...DICAL BOOK
...RAL LIBRARY
...V. OF NOTRE...

Vol. X

THE NEW SCHOLASTICISM

A Quarterly Review of Philosophy

JULY, 1936

I. The Problem of Freedom..... EDWARD A. [illegible]

II. The Location of Qualitative Species
II. Locke and Molyneux..... ANTHONY JOHN MAZZ[illegible]

III. The Argument from Motion in Aristotle and Aquinas..... ROBERT LEON RATTE[illegible]

IV. What Are the Predicables?..... JOHN J. [illegible]

V. Discussion: The Spirit of Mediaeval Philosophy..... ETIENNE GILSON

VI. BOOK REVIEWS

Needham, Order and Life, by Daniel O. O'Hara, S.J.
Glanbensgrunde und Glaubensmöglichkeit, by Willis D. Nutting; *Siegert*, Die Apologetik, by A. W. Gunsser; *Loofs* and *Sell*, Leitfaden zum Studium der Dogmengeschichte, by John M. Cooper; *Bellamy*, Modern Bible: An Application of Biblical Principles to Modern Relations, by Joseph T. Clune; *Pfeiffer*, Introduction to the Old Testament, by [illegible]; *Hamilton*, Living Issues in Philosophy, by [illegible]; *Lilley* and *Thomas*, Religious Education, by [illegible]; *Lehmen*, Lehrbuch der Philosophie, by [illegible]; *Lehmen*, Lehrbuch der Philosophie (Bd.),

THE NEW SCHOLASTICISM

A QUARTERLY REVIEW OF PHILOSOPHY

EDITED BY

EDWARD A. PACE — JAMES H. RYAN
JOHN K. RYAN — FRANCIS A. WALSH

JULY, 1936

I. The Problem of Freedom ..... EDWARD A. PACE 297

II. The Location of Qualitative Essence
H. Locke and Meyerson ..... ANTHONY JOHN HALPIN 326

III. The Argument from Motion in Aristotle
and Aquinas ..... ROBERT LEET PATTERSON 345

IV. What Are the Predicables? ..... JOHN J. TOOHEY 355

V. Discussion: The Spirit of Mediaeval
Philosophy ..... KURT F. REINHARDT 366

VI. Book Reviews 374

Needham, Order and Life, by Daniel C. O'Grady; *Stolz*, Glaubensgnade und Glaubenslicht nach Thomas von Aquin, by Willis D. Nutting; *Engert*, Die Erschliessung des Seins, by A. W. Centner; *Lovejoy and Boas*, Primitivism and Related Ideas in Antiquity, by John M. Cooper; *Robinson*, Political Ethics: An Application of Ethical Principles to Political Relations, by Joseph T. Clune; *Stufler*, Gott, der erste Beweger aller Dinge: Ein neuer Beitrag zum Verstaendnis der Konkurslehre des hl. Thomas von Aquin, by T. A. Rattler; *Giorgiantonio* (Ed.), *Leibnitz*, Discorso Di Metafisica "Hortus Conclusus", by F. A. Walsh; *Ottaviano*, Joachimi abbatis liber contra Lombardum, by A. K. Ziegler; *Santeyana*, Obiter Scripta, by John K. Ryan; *Cayré*, Manual of Patrology and History of Theology, by E. A. Ryan; *Sutherland*, Laws of Life, by Joseph T. Clune; *Kallen and Hook* (Eds.), American Philosophy Today and Tomorrow, by Henry A. Lucka; *Spaulding*, A World of Chance; or, Whence, Whither and Why? and *Planck*, The Philosophy of Physics, by Daniel C. O'Grady.

VII. Current Philosophical Reviews and Book Notes 398

Business communications, including subscriptions and changes of address, may be addressed to the Catholic University Press, 12-60 Hopkins Place (Rouse Building), Baltimore, Md., or to The New Scholasticism, Box 176, Catholic University of America, Washington, D. C.

Address communications concerning articles, reviews, and all matters of editorial policy or work to The Editors, The New Scholasticism, Catholic University of America, Washington, D. C.

European Agents: A. Lorentz, Kurprinzstrasse, 19, Leipzig, Germany.

Published by

CATHOLIC UNIVERSITY PRESS, 12-60 Hopkins Place (Rouse Building), Baltimore, Md.

EDITORIAL OFFICES: Catholic University, Washington, D. C.

Printed by J. H. Furst Co., Baltimore, Md.

Entered as second-class matter December 15, 1926, at the Postoffice at Baltimore, Md., under the Act of March 3, 1879.

THE
NEW SCHOLASTICISM
A Quarterly Review of Philosophy

Volume X JULY, 1936 Number 3

THE PROBLEM OF FREEDOM

AFTER a long period of exclusion the problem of freedom is again in the forum of serious discussion. For its return neither metaphysics nor mysticism is responsible. Its solution may be a vindication of the practical reason, but its reappearance is no part of the Kantian tradition. As now presented the problem is the outcome of research in departments of knowledge which hitherto have been regarded as indifferent and, in large measure, hostile to the doctrine of freedom. Philosophy indeed has much at stake, but what it is called on at this time to interpret has been put forward by physical science. This is the significant phase of the situation.

The issue recently joined between determinism and indeterminism brings into the lists on either side scholars of distinction, pioneers and leaders in various fields. In the name of science or on behalf of philosophy or to some extent as mediators for both, competent writers are producing a literature which, not bulky so far, is weighty enough to command attention. Whatever be the relative merit of the arguments advanced in these contributions one may, without anticipating the final result, attempt an outline of the actual status of system and theory as these are affected by the "new pathways in science."

The latest emergent in the evolution of thought calls out

widely different reactions. The average man who knows little of philosophy and less of its swarming isms may possibly catch echoes from the distant arena of conflicting argument. In that case, he will be surprised not at learning that he has a modicum of freedom but at discovering that any sane person ever thought otherwise. He has gone his way, making up his mind, choosing, planning, doing pretty much as he pleased, without let or hindrance save that which his conscience or his limited ability, the law of the land or his social environment threw in the way of his action. He has given and taken praise and blame, felt remorse or satisfaction on account of his deeds or omissions, excused himself as not intending to act as he did and accepted apology on the same ground from those who gave him offense. He probably has served on juries in criminal trials and listened to pleas of insanity. He has helped to acquit or condemn and punish according as the charge of malice aforethought was disproved or established. He may have taken part in the framing of laws which he and his fellows were called on to observe. And all these things he did taking for granted that his soul was his own and his will was free—or, more probably, never raising in his mind any question in regard to his freedom. Now he is given to understand that until quite recently his ideas were under the ban of philosophy but that they are once more recognized as correct in the main by a number of leading scientists. Should he come to know and appreciate the decision, he will have cause to congratulate philosophy on its firm purpose of amendment.

The plain man, after all, deserves consideration. If philosophy is meant for the enlightenment and guidance of humanity, it certainly must take into account the things that make life what it is. These indeed may be of little importance in the eyes of those who are concerned with cosmic problems, and yet these commonplaces of thought, belief and action are, or should be, basic to philosophy. They may need more accurate state-

ment and fuller explanation; they cannot be despised or swept aside, if philosophy is to build its house on facts.

The scientist who is actually engaged in research will hardly be disturbed by speculations based on quantum mechanics. No laboratory will be closed because of Planck's h or Heisenberg's uncertainty principle. Experimental work in physics and the application of its results in the mechanical arts probably will continue for a while as though Newton were still supreme. The center of discussion at present is the borderland where science and philosophy meet on friendly terms in perfect freedom.

Of philosophic systems old or new, Scholasticism is least likely to abandon the traditional contrast between determinacy in physical events and the indeterminacy of human acts. Freedom in the genuine sense of the term has its root in reason. As St. Thomas teaches,

> totius libertatis radix est in ratione constituta. Unde secundum quod aliquid se habet ad rationem, sic se habet ad liberum arbitrium. Ratio autem plene et perfecte invenitur solum in homine; unde in eo solum liberum arbitrium plenarie invenitur.[1]

Applying this criterion to non-human agents, Aquinas admits that in the lower animals there is "quaedam similitudo liberi arbitrii—quaedam conditionata libertas"—but no full freedom because "iudicium eorum est determinatum ad unum." Plants and inanimate things, being void of consciousness, have no *iudicium* at all and hence no freedom. Their action is fully determined whether we are able to predict it or not.

Among those whose philosophy is of more recent pattern the revival of freedom will be regarded from different angles depending on the positions the critics have hitherto held. Some will frankly acclaim it as a corroboration, from an unexpected source, of their cherished belief. They will find in the new direction of science a rebuttal of the strongest arguments which

[1] *De Veritate*, XXIV, 2.

have been urged by their opponents. It may eventually appear that the decline of determinism lays open the way for a rehabilitation of various traditional doctrines which are more or less closely connected with that of freedom.

Others again, quite as ardent in support of the orthodox view, will be more cautious in dealing with extraneous offers of aid. They will point out that the reasons on which their conviction rests are valid and sufficient apart from any endorsement by science. Accustomed as they are to the changes in theory by which science asserts its own freedom, they may bide their time until some more definite conclusion is reached through investigation. This attitude they may also justify by noting that on certain essential points, scientific theories are in open conflict. To predict the outcome is quite as difficult as, according to modern physics, it is beyond the power of calculation to determine both the exact position of a moving particle and its exact velocity.

A further reason for reserve appears in the divergence of opinion among those who are competent spokesmen in science and interpreters of its findings for the guidance of philosophy. While the radical character of the change in principle and viewpoint for physics is generally recognized, its significance for the problem of freedom is variously estimated. Citing the words of Heisenberg, Professor Arthur H. Compton comments:

> Natural phenomena do not obey exact laws. This statement marks perhaps the most significant revolution in the history of scientific thought. For faith in the reliability of nature is the bedrock upon which the structure of science is built. It has nearly always been assumed that this reliability implied the exactness of nature's laws. Has science, with its continual searching of fundamentals finally undermined its own foundations? Or is it possible that under the new physics a more adequate picture of the world can be drawn, one in which purpose is effective and life again has human meaning?[2]

---

[2] Arthur H. Compton, *The Freedom of Man* (New Haven, Yale University Press, 1935), p. 7. Cf. *L'évolution de la physique et la philosophie* (Paris,

To this question many different answers have been given. Professor Compton himself, after passing in review the arguments for and against indeterminism, concludes:

> The net result of such arguments seems to me to favor strongly the position of true freedom. I may confess, however, that even if logic appeared to favor determinism, as it has at many stages of our scientific knowledge, I should be unable to avoid a strong scepticism of a conclusion so contrary to the dictates of common sense. Socrates' contention that the knowledge which comes to us intuitively through direct experience is of a more fundamental kind than that based upon intricate arguments concerned with delicate tests still carries great weight. Morality has proved itself a vital factor in human advancement. That it pays to try is even more basic in our psychology than is the will to live. But all this is without true meaning if consciousness is ineffective. Such are the considerations that lead me to assume that we are truly free to choose our own actions.[3]

In a similar strain Sir Arthur Eddington writes:

> The revolution of theory which has expelled determinism from present-day physics has therefore the important consequence that it is no longer necessary to suppose that human actions are completely predetermined. Although the door of human freedom is opened, it is not flung wide open; only a chink of daylight appears. But I think this is sufficient to justify a reorientation of our attitude to the problem . . . it seems to me that the philosophical, psychological and in fact commonsense arguments for greater freedom are so cogent that we are justified in trying to prise the door further open now that it is not actually barred.[4]

No less emphatic on the other side is the statement of Professor Einstein:

1935), a series of discussions by a group of eminent scientists, M. Bauer, Louis de Broglie, C. Serrus, L. Brunschwig, A. Rey. Speaking of "la crise de la physique" M. Bauer declares: "depuis trente ans, notre image du monde s'est modifié de fond en comble, révolution profonde que l'on peut appeler une des expériences philosophiques les plus émouvantes de l'histoire," p. 3.

[3] *Op. cit.*, p. 59.

[4] *New Pathways in Science* (New York, The Macmillan Co., 1935), pp. 87, 88.

I do not believe we can have freedom at all in the philosophical sense, for we act not only under external compulsion but also by inner necessity. Schopenhauer's saying—'A man can surely do what he wills, but he cannot determine what he wills'—impressed itself upon me in my youth and has always consoled me when I have witnessed or suffered life's hardships. This conception is a perpetual breeder of tolerance, for it does not allow us to take ourselves or others too seriously; it makes rather for a sense of humor."[5]

Professor Max Planck, foremost among the leaders in the new physics, finds that

there is not the slightest contradiction between the domination of a strict causality in the sense here adopted and the freedom of human will. The fact is that the principle of causality on the one hand and free will on the other refer to totally different matters. We saw above that we must assume the existence of an ideal and omniscient spirit if a strict causality is to be upheld in physical events; on the other hand, the question of free will is one for the individual consciousness to answer; it can be determined only by the ego. The notion of human free will can mean only that the individual feels himself to be free, and whether he does so in fact can be known only to himself. Such a state of affairs is entirely compatible with the fact that his motives could be comprehended in every detail by an ideal spirit. A feeling that such a state of affairs is derogatory to the ethical dignity of the individual implies an obliviousness of the vast difference between the ideal spirit and the intelligence of the individual.[6]

---

[5] "What I Believe," *Forum*, October, 1930. Elsewhere he says: "Honestly I cannot understand what people mean when they talk about freedom of the human will." [Epilogue to Max Planck's *Where is Science Going?* Tr. James Murphy (New York, W. W. Norton & Co., 1932), p. 201]. Regarding the same dictum of Schopenhauer, Sir James Jeans points out that it "contains two distinct statements. The latter has to do with happenings on the mind side of the mind-body bridge, which are not the concern of physics. The former is the concern of physics. In brief, it was believed to be in conflict with nineteenth-century physics, but is not in conflict with the physics of to-day; whether it will be in conflict with the physics of to-morrow remains to be seen." [*The New Background of Science*, (2nd ed., New York, The Macmillan Co., 1934). P. 285].

[6] *The Philosophy of Physics* (tr. W. H. Johnston, New York, W. W. Norton & Co., 1936), p. 79.

Aloof from these variant opinions is the position of Professor Dingle who states: "The contribution of physics to the problem of free will seems to me to remain precisely what it has always been, namely nothing at all . . . even the metrical aspects of life and consciousness—which are surely those most nearly allied to physics—are apparently hopelessly outside the physical scheme. There does not seem to be any advantage in discussing the details of that scheme in relation to human free will as long as this state of affairs exists." [7]

Such diversity in speculation may afford aid and comfort to the followers of another philosophy which claims to be the official interpreter of modern science. Mechanicism, as the name implies, sees in nature only a vast machine. Reality consists of matter and movement, and of nothing else. Every event is rigorously determined by antecedent events. It is pushed forward without purpose to guide it, as the bullet thrust out by exploding powder hits something, though no mind has fixed the target nor eye has taken aim nor hand has levelled the rifle.

The mechanicist cannot deny that men act for the sake of ends, to satisfy some want or to get things which as yet they do not possess. He will admit that machines, which do not build themselves, are built by human hands, to embody human purposes. Presumably he will acknowledge that in thinking and writing his philosophy his purpose is to prove that there is no purpose, in his mind or elsewhere, that teleology, old and new, is a myth of anthropomorphic origin. And if he must admire the practical results of scientific research he still contends that what we call our control of physical forces is merely force subduing itself.

From his point of view, the world process is but another instance, on a larger scale, of the same mechanical succession in which integration and differentiation of matter and motion

[7] Herbert Dingle, *Science and Human Experience* (New York, The Macmillan Co., 1932), p. 89.

alternate. There is a law of evolution but no lawgiver to lay down its course; this was wholly determined by the play of primordial atoms. Out of these have come all things—life and mind and the mechanistic philosophy.

The doctrine lays no claim to novelty. On the contrary it traces its lineage to the cosmology of the early Greek thinkers. It has survived through many conflicts and has renewed its strength by coalitions with materialism, naturalism and certain types of evolutionism. As the physical sciences grew in vigor, mechanicism waxed stronger and bolder, throwing wide its gates to each new theory and hypothesis that seemed to tell in its favor, without fear or suspicion of *dona ferentes*.

Not satisfied with its conquest of the inanimate realm, mechanicism invaded the organic. Here the task was somewhat more difficult. Biology and physiology, at first, set up protest and resistance. They dealt with vital phenomena which could not be completely explained on mechanistic principles. In the relation of structure and function, in fitness and adaptation to environment, in the service rendered by order to order among living things, there were evidences of purpose which must have at least influenced evolution long before human intelligence appeared. The very "stuggle for existence" had a teleological flavor. Yet these minor obstacles were discounted and eventually swept away in the onward march of mechanicism. Vital activities were reduced to physico-chemical processes.

There remained consciousness. The older psychology had built up an elaborate scheme of powers and faculties in which due account was taken of lower forms dependent on organic functions while the higher intellectual processes were kept on a level of their own. All, however, were held in closest relations among themselves and with the unconscious bodily activities by a unifying principle, the soul. This theory accounted for the undeniable fact of experience that functions so widely

diverse as sensation and thought, emotion and volition, are, as of natural prompting, without reflection or instruction, referred by each individual to one source and center, the self or ego.

Under the mechanistic attack, this structure crumbled. The soul fell first: it was superfluous. Next went the faculties, for the sake of simplification. Thought and volition held their own as distinct activities, for a time. But will, in particular free-will, was a stumbling block. To remove it various devices were employed. The most promising and the most congenial to mechanicism was the ideo-motor theory. This, by a skillful though simple turn of the psychologist's hand, transferred to the cognitive side of mind the belongings and functions of the conative. It was generally known that mental images and emotions had a bodily resonance. Why should not the same be true of intellectual concepts? They were all products of the brain. If one group had motor effects or concomitants, why should any other group be inactive? So, in the name of economy, the idea, besides its original functions of representing, relating, generalizing and the rest, was charged with initiating and directing the motor activities as well. Just how it learned what was happening in the motor area at a given moment, mechanicism did not explain. The important thing was the displacement of the will and, with that out of the way, the abolition of freedom.

Thereupon, it might have seemed that the campaign was ended and the mechanistic occupation complete. This was not the case. One bulwark had still to be demolished—the sense of freedom. Not only the plain man, but every one else, psychologists and philosophers included, felt that in some of their actions at least, they were free to decide and to do or refrain. Rational their conviction might be, or irrational; the feeling of freedom could not be set aside. It was at any rate a phenomenon and as such it called for explanation. Mechanicism did not balk. It calmly admitted the fact, while it denied that there

was any truth in the belief. The sense of freedom, it asserted, was merely an illusion due to our ignorance. We do not know the causes that are really driving or drawing us toward or away from an action which we think of performing. We are not aware of the influence exerted upon our present deliberation by the deposit of our own previous, perhaps forgotten, experience and still less do we know of the hidden forces within us which we have inherited from the remoter past of our ancestry. We may understand what we mean by "will," but the complex of tendencies which make up our "I" is beyond the reach of analysis. Hence, we feel ourselves free whereas we are but puppets pulled hither and yon by secret strings behind the scene.

For other kinds of illusion such as those which occur in sense-perception and are called "normal," psychology finds an explanation in physical or organic conditions. The illusion persists though it has been explained: we *know* the cause, e. g., refraction of light rays. The illusion of freedom persists, because we do not know the cause or causes to which it is due; we do not even suspect that we are under illusion.

In the palmy days when psychology was still the science of the mind or at least of mental processes, it was often said that in deliberation the stronger, or the strongest, motive prevailed. The source of its strength might be unknown; it was none the less felt in consciousness. It fired the imagination, perhaps, and kindled desire but it was not, of itself, an "observable phenomenon." It moved and finally determined the will either to give or to refuse consent. This sort of determinism, however, did not satisfy the requirements of thorough-going mechanicists: it left a remnant of will. And in this sense, "as a faculty, as a separable occurrence" will, according to Mr. Bertrand Russell, is a delusion, "a metaphysical superstition." [8]

[8] Bertrand Russell, *Philosophy* (New York, W. W. Norton & Co., 1927). p. 223.

To fathom the depths of illusion and superstition to which ignorance had plunged human intelligence, it suffices to point out the meaning of the sense of freedom in its ethical implications. It is, or was, essential for the direction of conduct. In spite of deterministic theories, the distinction between right and wrong continued to influence action, individual and social. The science of ethics survived for the adjustment, through law, of human relations. Education professed as its aim preparation for good citizenship, loyalty to the right, civic virtue and service to society. Men accepted responsibility, felt it and bore it, often at the sacrifice of personal ease or inclination, as a matter of duty. Without any searching analysis of motive or principle, they did what they thought to be right. And so far they obeyed the dictates of reason in preference to the urge of wayward desire. For they had learned that reason was the guide of right conduct and they knew that they were free to follow its guidance.

This was the generally accepted view among philosophers also, until the fundamental doctrine of freedom yielded to the pressure of a mechanistic psychology. Then ethics in turn fell under the sway of determinism. It ceased to be normative and devoted its efforts to the investigation of facts. It traced the evolution of moral ideas, standards and sanctions. In close contact with social psychology it emphasized the influence of custom and convention. It formulated theories of value and definitions of virtue. Under the new ethical system, the moral life was upheld without dependence upon the moral law.

Back of all this description and keen analysis was the principle of determinism. It, supposedly, gave to ethics a scientific character. At one point, however, it encountered difficulties. It stumbled, for a time, at the single word *ought*. To hold up ideals and draw pictures of the good life was easy enough: to persuade men that they ought to do this and not do that was another thing. Since their conduct was fixed and settled by

forces which no power of thought could arrest and no freedom of choice deflect, it was useless and inconsistent to speak of oughtness. Even when it was clearly shown that such or such a course was rational, the man who had been trained in deterministic beliefs could always ask—what does it matter?

Logically the word *ought* should have been dropped from the vocabulary of ethics along with other terms which hinted at a categorical imperative. Among these was responsibility. How to impress the individual with a conviction of his obligations, how to urge him to their fulfilment was no light task. Harder still was it to hold him accountable for his failure or to condemn him for his misdeeds. Why exhort him to mend his ways and fit himself to take part in some of the countless reforms with which zealous folk, all mechanically determined, are trying to renew the face of the earth? He, and they no less, are but cogs in the cosmic machine which, if it had any sense of humor, could only smile at their vain endeavor.

In presence of these difficulties, several positions are taken. One is frankly agnostic. It admits that it sees no solution. Possibly, further research may help the situation. The interference of opinions which now prevails among physicists may result in some unexpected light to dispel the darkness through which we are groping. And this attitude, as an honest admission, is to be commended—if indeed there be any praise of honesty or other form of virtue in a world which mechanicism rules.

According to another view, "the course of ethical discussion has made it evident that responsibility in the ethical sense is possible also under a theory of determinism as well as of free will." [9]

But the position which most fully accords with mechanicism is held by those who proclaim that determinism supplies the

[9] Arthur Kenyon Rogers, *The Theory of Ethics* (New York, The Macmillan Co., 1922), p. 99.

surest guarantee of responsibility. It eliminates whim and caprice, does away with useless regrets about what might have been and brings human action into harmony with universal law. More simply the philosophy of bound-to-be assures the average man that he is responsible for what he does because he could do no other.

Most of this theorizing and disputing might have been spared if mechanicism had anticipated the conclusion to which some of its advocates were moving forward in the extension of its principles. While it was busy with its task of reducing mental processes to the mechanical level, and still speaking of "conscious" states as determined in this way or that, a more advanced psychology had discovered that consciousness was merely a fiction, a relic of mediaeval speculation with which "scientific" psychology had no concern. This had only to study stimulus and reaction in the human thing.

As a well-known obituary expresses it, psychology lost its soul, then lost its mind, then lost consciousness altogether. In paraphrase one might say that philosophy gave up its freedom, then gave up its will and at length gave up the ghost entirely. In passing it bequeathed to mechanicism just what was wanting to make that system complete.

All that had been done previously in the name of psychology—the refinement of methods, the correction by experiment of the doubtful results of introspection, the close relation with physics and physiology in the study of sensation, emotion and other "conscious" phenomena—all this, in the judgment of behaviorism, was wasted time and ingenuity—much ado about nothing. A fortiori, the numerous theories and systems built up on the outcome of research were cast away. The debates about interactionism and psychophysical parallelism lost point and meaning. Obviously, there could be no parallel where there was only one line or side: nor could that interact with itself. Still less was any room left for the long-discussed question as to the rela-

tion between mind and brain; an empty word and an all-sufficient organ. So behaviorism had made *tabula rasa* of the whole surface once occupied with the problems of conscious life and their unprofitable solutions. Behaviorists still spoke and wrote as if they meant to convince. The stimulus of their discourse was often sharp enough. The reaction, however, was not always unanimous. To some it would seem that by arguing the behaviorist refuted his own claim; to others his reasoning gave the impression that he was illustrating the fundamental principle of his system. At all events he was a striking illustration of the mechanistic doctrine carried to its inevitable conclusion. There was no longer any need of discussing the merits of determinism and indeterminism. These, for psychology, were obsolete, their quarrel at rest and forever.

In the meantime, science on which mechanicism had relied from the beginning, was moving in a new direction, the very opposite to that marked out and followed in its earlier stages. With the guarantees supplied by advancing mathematics and increasing perfection in its own methods, science broke away from the Newtonian tradition, abandoned certain basic principles of classical physics and finally declared that the course of nature is not rigorously fixed and determined. The implication was obvious. As indicated above, it is not appreciated or emphasized to the same extent by all philosophical systems. For mechanicism in particular, it must be, to say the least, disconcerting to learn that what it considered a foundation of rock is become a quicksand. Even though further investigation should modify the view at present so widely prevailing, mechanicism will find it difficult to rebuild its structure, unless it be satisfied with a trembling foundation.

On one point it should take warning of science. The "illusion" has been located at last. Using the analogy of two projection lanterns, the one imperfect, the other perfect, Sir James Jeans declares: "The imperfect lantern is the old science. It gave us the illusion that if only we had a perfect lantern, we should

be able to determine both the position and motion of a particle at a given instant with perfect sharpness and it was this illusion that introduced determinism into science. But now that we have the more perfect lantern in the new science . . . it cuts away the ground on which the old determinism was based![10]

To the same effect Professor Russell, Director of the astronomical observatory at Princeton, writes:

> This much at least we may say. If our personal freedom and responsibility are illusions, so is the blue sky above us and the solid earth beneath our feet. Let the keen analyst pursue his unending search for the elusive ultimate; we rest upon the proximate. Our freedom is, at least, as sure as sunrise, as solid as rock, as immovable as the everlasting hills; and need we ask more?[11]

But again, it may be that illusion, or perchance, delusion, has misled mechanicism itself. This could hardly have occurred in the early days when mechanistic philosophy drew inspiration and guidance from science and, heedless of Hume, accepted the principle of universal causation. When science rejected final causes as useless for its investigations and explanations, mechanicism readily agreed; in fact it did away with teleology both in the accessible portions of nature and in the universe as a whole. It felt that it was growing more and more scientific and it took pains to appropriate for its own advantage every idea and mode of reasoning which science put forward in line with the principle of efficient causality.

At length, however, differences arose as to the meaning of "efficient." While science was satisfied with uniform sequence, mechanicism insisted on the necessary connection between cause and effect. Given A, B follows; and since in our experience B has always followed we are justified in predicting that it

[10] *The Mysterious Universe* (revised ed., New York, The Macmillan Co., 1935), p. 31.

[11] Henry Norris Russell, *Fate and Freedom* (New Haven, Yale University Press, 1927), p. 57.

will do so again whenever conditions are the same. This was the position of science. Mechanism agreed to this but it added that B *must* follow. Necessitation, from the scientific point of view, was a concept which might be available for metaphysics, but which, as it was beyond observation, could not afford any insight into the relation among physical events over and above what was directly perceived. For mechanicism on the other hand, necessitation was indispensable. It was of the very essence of reality, order and law. It made nature intelligible and prediction both possible and certain.[12]

As the importance of causality dwindled science relinquished its traditional task of explanation and confined its efforts to description. Some traces, however, of determinism remained, in the formulation of physical laws based on unvarying sequence of phenomena and in the forecasting of future events. In both of these undertakings, science had the powerful support of mathematics. Calculation as the basis of prediction was the warrant of confidence in scientific procedure. Here too mechanistic philosophy put its trust in science albeit with cooling enthusiasm. Even a tempered determinism was better than none in the campaign against freedom.

But the crisis was near at hand. New insights were setting new goals for science. Biology was among the first to map its own field and trace its lines of research in accordance with its own principles. Neo-vitalism came to the fore with claims that called for a hearing. Even the entelechies cast off their winding-sheet and walked openly where once they dared not appear. Evolution itself was cited as proof of an ordering intelligence which fashioned and directed the world process making it

[12] "The text-books say that A is the cause of B if A is "necessarily" followed by B. This notion of "necessity" seems to be purely anthropomorphic, and not based upon anything that is a discoverable feature of the world. . . . The notion of compulsion is just as little applicable to effects as to causes. . . . Science is concerned merely with what happens, not with what *must* happen." Bertrand Russell, *op. cit.*, p. 115.

intelligible and so inviting the mind of man to search out the ways of Nature. Biology had felt anew the *élan vital.*

Yet, in the mechanistic view, this renaissance counted for little. It was simply a momentary aberration, an instance of atavism such as occurs not rarely in the progress of science. From this passing fit of teleology, the study of vital phenomena would shortly recover and revert to its normal course under the direction of mechanicism.

The prediction has not been verified. On the contrary, physics, next of kin to mechanicism, has broken the ties which hitherto held them so closely united. In place of the inevitable course of events, we now hear of uncertainty and probability in the physical world. And, strange to say, this revolution in theory is the outcome of quantum mechanics which in turn is based on the highest form of mathematics. This means, obviously, that by taking thought, science has set aside not only the fundamental principle of classical physics but also the foundation of mechanistic philosophy. In other words, thinking which according to that philosophy is mechanically determined, has brought about indeterminacy in physical events.

It may be pointed out as a final plea for mechanicism that according to the version proposed by some scientists, uncertainty applies to atomic events only while large scale events still are subject to the law of cause and effect and are therefore rigorously determined. Should this interpretation prevail in the long run, the doctrine of human freedom would lose what it seems to have gained. The advantage would be left to the protons and neutrons, whereas the will of man, whether plain human being or scientist, would remain subject to inescapable law.

Such an inversion of the established order is suggested by Mr. Bertrand Russell: "The physical world, so far as science can show at present, is perhaps less rigidly determined by causal laws than it was thought to be; one might, more or less fancifully,

attribute even to the atom a kind of limited free will." Just where the limit is to be fixed we are not told. Nor is it quite clear what the atom is to do with a "metaphysical superstition" limited or unlimited, unless this, in our fancying, be pictured as bombproof.[13]

Among the questions still calling for answer some originate in the broader field of evolutionism. Were the primordial elements of the world mechanically determined? If so, when and how were they freed from bondage? If they were emancipated before the appearance of man, how did he fall back to the lower state where freedom was unknown? Does the uncertainty which now prevails in nature, permit any prediction or suggest any hope of a future in which man also may become free? Or, finally, is it possible that the so-called decline of determinism which men of great knowledge are said to sponsor, be but another illusion due to oversight or ignorance? In this case, scientists, regardless of philosophical speculation, will be the first to detect the error and correct it.

A theory accounting for all the facts is not yet in sight. It seems reasonable to hope that further investigation may clear away some of the uncertainty. It does not seem probable in any case that mechanicism, as a denial of freedom, will regain its ascendancy. It is quite possible that the philosophy which draws the line between determinacy in the physical order and the measure of indeterminacy accorded to human volition, will eventually triumph.

To insure any satisfactory result both scientist and philosopher will do well to take some lessons from the history of thought and from recent experience. The first is to evaluate and keep within bounds the "passion for unity." We tend as by a law of our intelligence to reduce the many to the one. In so doing, we are apt to disregard differences and consider only the common element, to see only difference of degree where difference

[13] *Op. cit.*, p. 300.

in kind should be noted. So, specific characters are neglected in favor of what is generic. In this way it has been attempted to unify all forms of activity under the concept of a universal energy and even to maintain that this is conserved in its kinetic form without reference to any potential condition. The ambition of the scientist is to find a single formula for all that takes place in the physical world. Likewise, mechanicism sought to unify nature and man in a single network of determinate events by eliminating freedom.

But such an identification is not the only means to secure unity on a rational basis. There is a unity of order in which each element is fully preserved, exerts its individual capacity and thereby contributes to the progress and perfection of the whole. Order, however, presupposes intelligence and purpose, neither of which is tolerated by mechanicism.

While discussion so far has dealt chiefly with the question of uncertainty and indeterminacy in the physical world, the practically more important problem cannot be settled or even intelligently discussed until the ground is cleared of ambiguity and vagueness regarding the nature of freedom. The definition of terms, indispensable as a preliminary to the treatment of other subjects, is specially important in this case because of the central position which volition holds in mental activity and because of the multifarious constructions and interpretations which have been assigned to the will by philosophic systems through centuries. Should the present crisis in science result in a clear understanding of the problem of freedom, philosophy will be in a better position to deal both with the uncertainties of the material world and with its own firmly established truths.

Edward A. Pace.

The Catholic University of America.

THE LOCATION OF QUALITATIVE ESSENCE

II: Locke and Meyerson

Continued from Vol. X, No. 2, Page 166

Since John Locke was the first English-speaking philosopher to found a school of philosophy,[99] and since his philosophy, particular his views on sensible qualities, have so widely influenced the philosophers of our own country and of England, it is fitting that we now examine his teachings. Our specific purpose shall be to determine his solution, in so far as he may offer one, of the problem of locating qualitative essence. Following the plan adopted in the preceding chapters, his teachings on substance will be set forth first. Professor Morris has pointed out that Locke's loose and inexact style "has consequently made his reasoning obscure and his conclusions uncertain."[100] This difficulty is encountered in his treatment of substance, for when he is most empirical the idea of substance is little more than a fancy, but when he is most rationalistic, he makes much of it.[101] Locke says, "The idea, then, we have, to which we give the general name substance, being nothing but the supposed, but unknown, support of those qualities which we find existing, which we imagine can not subsist *sine re substante*, without something to support them, we call that support substantial."[102] In Locke's first letter to the Bishop of Worcester he defends the notion expressed here, that is, the essential note of substance is that it be a "support of qualities."

If, by almost discarding substance out of the reasonable part of the world, your lordship means, that I have destroyed, and almost discarded

[99] Michael Mahony, *History of Modern Thought* (New York, 1933), p. 7.

[100] Morris, *British Thought and Thinkers*, p. 180; quoted by Mahony, *op. cit.*, p. 21.

[101] Raymond Gregory, *A Study of Locke's Theory of Knowledge* (Wilmington, Ohio), 1919, p. 20.

[102] John Locke, *An Essay Concerning Human Understanding*, edited by A. C. Fraser (Oxford, 1894), II, 23, 2.

the true idea we have of it, by calling it a substratum, a supposition of we know not what support of such qualities as are capable of producing simple ideas [103] in such, an obscure and relative idea. That without knowing what it is, it is that which suports accidents; so that of substance, we have no idea of what it is, but only a confused, obscure one of what it does: I must confess, this and the like I have said of our idea of substance: and should be very glad to be convinced by your lordship, or anybody else, that I have spoken too meanly of it. He that would show me a more clear and distinct idea of substance, would do me a kindness I should thank him for.[104]

While this view of substance as the supposed support of qualities is the one he most frequently gives, we also find him describing substance as that which exists by itself. "The ideas of substances are such combinations of simple ideas as are taken to represent distinct particular things subsisting by themselves." [105] To understand why Locke says, "The idea of pure substance in general is only a *supposition*," we must know the fundamental tenet of his theory of knowledge. That tenet he expresses thus: "Since the mind, in all its thoughts and reasonings, hath no other immediate object but its own ideas, which it alone does, or can contemplate, it is evident, our knowledge is only conversant about them." [106] Then he concludes: "Knowledge then seems to me to be nothing but the perception of the connexion or agreement, or disagreement and repugnancy of any of our ideas." [107] Consequently when the Bishop of Worcester accused him of casting doubt on the being of substance, he replied, in his letter to the Bishop: "To which I beg leave to say, that I ground not the being, but the idea of substance, on our accustoming ourselves to suppose some sub-

[103] Simple ideas are those "in the reception whereof the mind is only passive . . . which are received from sensation and reflection. II, 12, 1. "Simple ideas . . . are only to be got by those impressions objects themselves make on our minds, by the proper inlets appointed to each sort. III, 4, 11.

[104] Locke, *Essay*, II, 23, 2 (Note).

[105] *Ibid.*, II, 12, 6.

[106] *Ibid.*, IV, 1, 1.

[107] *Ibid.*, IV, 1, 2.

stratum; for it is of the idea alone I speak there, and not of the being of substance." [108]

As for the knowledge of a particular concrete substance, it is a case of having the ideas of a certain group of qualities which are found to coexist in aggregates in our experience. "For he has the perfectest idea of any of the particular sorts of substance, who has gathered and put together most of those simple ideas which do exist in it." [109] We have ideas of three sorts of substances, namely, God, finite intelligences, and bodies.[110] How we come by the ideas of spiritual and material substances he explains in the following passage:

> The same thing happens concerning the operation of the mind, viz., thinking, reasoning, fearing, etc., which we concluding not to subsist of themselves, nor apprehending how they can belong to body, or be produced by it, we are apt to think these the actions of some other substance, which we call *spirit:* whereby yet it is evident that, having no other idea or notion of matter, but something whereby those many sensible qualities which affect our senses do subsist; by supposing a substance wherein thinking, knowing, doubting, and a power of moving, etc., do subsist we have as clear a notion of the substance of spirit, as we have of body; the one being supposed to be (without knowing what it is) the *substratum* to those simple ideas we have from without, and the other supposed (with a like ignorance of what it is) to be the *substratum* to those operations we experiment in ourselves within.[111]

The primary ideas, then, which we have peculiar to body are two, solidity and the power of communicating motion by impulse. The ideas peculiar to spirit are also two, thinking and willing. The ideas of existence, duration, and mobility are common to both.[112]

The term accident is seldom used by Locke, for the simple reason that he uses what is for him a synonymous term, that is quality.[113] However he has this concerning accidents: "They

[108] Locke, *op. cit.*, II, 23, 1 (Note).
[109] Locke, *op. cit.*, II, 23, 7.
[110] *Ibid.*, II, 27, 2.
[111] *Ibid.*, II, 23, 5.
[112] *Ibid.*, II, 23, 17.
[113] *Ibid.*, II, 23, 2.

who first ran into the notion of accidents, as a sort of real beings that needed something to inhere in, were forced to find out the word substance to support them." [114]

The proper meaning for essence, he agrees, is "The Being of any thing, whereby it is what it is. In this sense it is still used when we speak of the essence of particular things, without giving them any name." [115] Essence is considered under two aspects, the real and the nominal essences, which are analogous to the first and second substances of the Scholastics. "By this real essence I mean that real constitution of anything which is the foundation of all those properties that are combined in, and are constantly found to co-exist with the nominal essence; and that particular constitution everything has within itself; without any relation to anything without it." [116] It is from this essence that the simple ideas of qualities derive their existence, for qualities "are therefore supposed to flow from the particular internal constitution or unknown essence of that substance." [117] Since the being of substance is unknown, it follows the real essence of substance not being in the realm of ideas, is outside the field of knowledge, and consequently unknown to us. "The real essence is the constitution of the insensible parts of that body, on which those qualities and all the other properties . . . depend." [118] Now whatever is insensible is unknown for Locke, since all his ideas are got immediately by sensation, or indirectly by reflecting [119] on the operation of the mind as it is employed with the ideas got by sensation.[120]

"Indeed as to the real essences of substances, we only suppose their being, without precisely knowing what they are." [121]

[114] *Ibid.*, II, 13, 19.
[115] *Ibid.*, III, 6, 1.
[116] *Ibid.*, III, 6, 6.
[117] *Ibid.*, II, 23, 3.
[118] *Ibid.*, III, 6, 1.
[119] *Ibid.*, II, 1, 2-4.
[120] "This source of ideas . . . though it be not a sense, as having nothing to do with external objects; yet it is very like it and might properly enough be called internal sense." II, 1, 4.
[121] Locke, *ibid.*, III, 6, 6.

The nominal essence is nothing more than an abstract idea,[122] and therefore comes within the scope of our knowledge.

The measure and boundary of each sort, or species, whereby it is constituted that particular sort, and distinguished from others, is what we call its essence, which is nothing but that abstract ideas to which the name is annexed; so that everything contained in that idea is essential to that sort. This, though it be all the essence of natural substances that we know, or by which we distinguish them into sorts; yet I call it by a peculiar name, the nominal essence, to distinguish it from the real constitutional of substances, upon which depends this nominal essence, and all the properties of that sort; which, therefore as has been said, may be called the real essence: v. g. the nominal essence of gold is that complex idea [123] the word gold stands for, 1st it be, for instance, a body yellow, of a certain weight, malleable, fusible, and fixed.[124]

It is not clear how the nominal essence of a substance depends on the real essence of a substance. At most it can have only a supposed dependence. The species is determined by the nominal essence of the substance, but he is sufficiently clear in maintaining the species does not depend on the real essence. "Our distinguishing substances into species by names, is not at all founded on their real essences; nor can we pretend to arrange and determine them exactly into species, according to the essential differences." [125] "All that we can do is to collect such a number of simple ideas, as by examination we find existing, and thereof to make one complex idea: which though it be not the real essence of any substance that exists, is yet the spe-

[122] "The mind makes the particular ideas, received from particular objects, to become general; which is done by considering them as they are in the mind, such appearances, separate from all other existences, and the circumstances of real existence, as time, place, or any other concomitant ideas. This is called abstraction, whereby ideas, taken from particular beings, become (sic) general representatives of all of the same kind, and their names general names, applicable to whatever exists conformable to such abstract ideas." *Ibid.*, II, 11, 9.

[123] "Combining several simple ideas into one compound one, and thus all complex ideas are made." Locke, *op. cit.*, II, 12, 1.

[124] *Ibid.*, III, 6, 1.

[125] *Ibid.*, III, 6, 20.

cific essence to which our name belongs, and is convertible with it." [126] After this rather involved discussion of the real and the nominal essences of substance we might well ask, "When face to face with a concrete substance, how does a man distinguish its essence?" Locke answers, "Upon the whole matter, it is evident that it is their own collections of sensible qualities, that men make the essences of their several sorts of substances; and that their internal structures are not considered by the greatest part of men, in sorting them." [127] We conclude this examination of the two kinds of essences with the brief summary: real essence is unknown, and nominal essence is an abstract idea; we leave them to dispute the claims of each other.[128]

In simple ideas and modes there is no unbridged gulf between the two kinds of essences.

Essences being thus distinguished into nominal and real, we may further observe, that in the species of simple ideas and modes they are always the same, but in substances quite different. Thus a figure, including a space between three lines, is the real as well as nominal essence of a triangle; it being not only the abstract idea to which the general name is annexed, but the very *essentia* or being of the thing itself, that foundation from which all its properties flow, and to which they are all inseparably annexed.[129]

---

[126] *Ibid.*, III, 6, 21.

[127] *Ibid.*, III, 6, 24.

[128] A. W. Moore, *Existence, Meaning, and Reality in Locke's Essay and in Present Epistemology* (Chicago, 1903), p. 4.

[129] Locke, *op. cit.*, III, 3, 18. In his study of essence Locke briefly considered substantial forms but rejected them as fruitless. "Those, therefore, who have been taught, that the several species of substances had their distinct, internal, substantial forms; and that it was those forms which made the distinction of substances into their true species and genera, were led yet farther out of the way, by having their minds set upon fruitless inquiries after substantial forms, wholly unintelligible, and whereof we have scarce so much as any obscure or confused conception in general." III, 6, 10. "Modes, I call such complex ideas which, however compounded, contain not in them the supposition of subsisting by themselves, but are considered as dependences on, or affections of substances." II, 12, 1.

Now, since the ideas of all sensible qualities are either simple ideas or modes, then, according to Locke, all sensible qualities have an essence.

In Locke's teaching, qualities have their origin in his theory of knowledge and are bound up inextricably with it. Unlike the Scholastic theory of Realism, which is not merely a theory of knowledge, but a philosophy with a metaphysical basis,[130] whatever there is of metaphysics in the philosophy of Locke is based on his theory of knowledge. This is very well illustrated in his teaching on qualities. "The power to produce any idea in our mind I call quality of the subject wherein that power is." [131] He is in agreement with the Scholastics as to the sum total of sensible qualities. "Yet I think it is not possible for any one to imagine any other qualities in bodies . . . whereby they can be taken notice of, besides sounds, tastes, smells, visible and tangible qualities." [132] In classifying qualities he adopted the terminology of Galileo and Boyle, that is, primary and secondary qualities. These correspond to Aristotle's proper and common sensibles. While it is true the secondary qualities are perceived by more than one sense, still his basis for this classification is the location of the qualities. The primary qualities have their real essence in the external bodies: "Qualities thus considered in bodies are, first, such as are utterly inseparable from the body, in what state soever it be; . . . These I call original or primary qualities of body, which I think we may observe to produce simple ideas in us, viz., solidity, extension, motion or rest, and number." Secondary qualities, as qualities, that is, as we know them, are those whose essences are

"Locke's modes are names for the ideas we have of qualities, and collections of qualities considered in abstraction from substances." *Ibid.* (Editor's note).

[130] James H. Ryan, *An Introduction to Philosophy* (New York, 1932), pp. 180 ff.

[131] Locke, *op. cit.*, II, 8, 8.

[132] Locke, *op. cit.*, II, 8, 9.

more truly located in the percipient subject than in the external body. "Secondary qualities . . . are nothing but bare powers, depending on primary qualities whereby they are fitted to produce different operations on different parts of our bodies." [133]

Our knowledge of primary qualities really resembles those qualities as modifications of matter in real bodies; they are exactly the images of something inherent in the external objects. "I think it easy to draw this observation, that the ideas of primary qualities of bodies are resemblances of them, and their patterns do really exist in the bodies themselves." [134] These qualities make perceivable impressions, both on the eyes and the touch.[135] The primary qualities, then, are really in the different external bodies, but concerning the secondary qualities it is quite otherwise. Though appearing in Locke's last book the following passage seems to be a warning *a propos* to the study of the secondary qualities: "We may be convinced, that the ideas we can attain to by our faculties are very disproportionate to things themselves, when a positive, clear, distinct one of substance itself, which is the foundation of all the rest, is concealed from us." [136] The senses can never know the secondary qualities as they are in bodies—as they *really* are, is the more common expression—for in bodies they are merely *bare* powers. Locke would apparently object to our saying that his secondary qualities do not agree to the reality of things. However, it would only be a trick of language for to the phrase "the reality of things," he gives his own peculiar interpretation.

Our *simple ideas* are all real, all agree to the reality of things: not that they are all of them the images or representations of what does exist; the contrary whereof, in all but the primary qualities of bodies, hath been already shown. But, though whiteness and coldness are no more in snow than pain is; yet those ideas of whiteness and coldness, pain, etc., being in us the effects of powers in things without us, ordained by our Maker to produce in us such sensations, they are real ideas in us,

[133] *Ibid.*, II, 23, 8.
[134] *Ibid.*, II, 8, 15.
[135] *Ibid.*, II, 5.
[136] Locke, *op. cit.*, IV, 3, 23.

whereby we distinguish the qualities that are really in things themselves . . . whether they be *constant effects*, or else *exact resemblances* of something in the things themselves; the reality lying in that steady correspondence they have with the distinct constitutions of real beings. But whether they answer to these constitutions, as to causes or patterns, it matters not; it suffices that they are constantly produced by them.[137]

Consequently all qualities, according to this interpretation, are really in external bodies. The next question then is, "In what manner are the primary and secondary qualities in external bodies?"

The particular bulk, number, figure, and motion of the parts of fire, or snow, are really in them, whether one's senses perceive them or no; and therefore they may be called real qualities, because they really exist in those bodies; but light, heat, whiteness, or coldness, are no more really in them than sickness or pain is in manna. Take away the sensation of them; let not the eyes see light or colors, nor the ears hear sound, let the palate not taste, nor the nose smell; and all colours, tastes, odours, and sounds, as they are such particular ideas, vanish and cease, and are reduced to their causes, i. e., bulk, figure, and motion of parts.[138]

Hence in locating the sensible qualities, according to John Locke, we must place the primary qualities really in the external bodies as true patterns of the qualities perceived, but the secondary qualities must be placed in those bodies only as causes; formally they are in the percipient subject.

. . . . . .

Locke's teaching on the location of the primary and secondary qualities, though ably refuted shortly after his death by Bishop Berkeley, continued to influence philosophy and science profoundly.[139] In fact, the conclusions of modern science are very similar to those arrived at by John Locke. We shall, therefore, examine the theory as expounded by Émile Meyerson, a con-

[137] *Ibid.*, II, 30, 2.
[138] *Ibid.*, II, 8, 17.
[139] George Berkeley, *Berkeley, Essay, Principles, Dialogues*, edited by Mary Whiten Calkins (New York, 1929).

temporary scientist turned philosopher. It will be necessary to begin by sketching the background of Meyerson's approach to this problem of the location of qualitative essence. The prime motive behind Meyerson's epistemology is his conviction, "that the best way to solve the problem concerning common sense consists in examining the methods followed by science."[140] He claims that this method in no wise runs counter to that fundamental rule which demands that we proceed from the simple to the complex, because in this case the apparently simple is not really simple, for example, the process of visual perception contains a number of condensed reasonings very difficult to follow. In science a greater opportunity for tracing the progress of phenomena is afforded because the stages are differentiated. Moreover by such a procedure one moves from the known to the unknown, whereas in the ordinary cognitive processes much more is unconscious and consequently unknown.[141]

As the outcome of his study he affirms that two great principles control man's interpretation of nature. One of these he calls "the principle of legality," the other "the principle of causality."[142] The principle of legality is, as its name suggests, the principle upon which natural law is based. A natural law is a statement of the form that any given event always occurs in such and such a way; it is based on the uniformity of nature. The Positivist school claimed that all science is established only for the purpose of action and prevision; hence they remained satisfied with the single principle of lawfulness. Meyerson, however, proves that this is not sufficient, claiming that in explaining a phenomenon by a law we are only using a synecdoche.[143] "Science attempts equally to *explain* phe-

[140] Émile Meyerson, *Identity and Reality*, trans. by Kate Lowenberg (New York, 1930), Author's Preface, p. 5.

[141] Karl Herzfeld, "The Philosophy of Émile Meyerson," in *Thought* (June, 1933), Vol. VIII, n. 2, p. 92.

[142] Meyerson, *op. cit.*, pp. 17-62. George Boas, *A Critical Analysis of the Philosophy of Émile Meyerson* (Baltimore, 1930), pp. 1-2.

[143] Meyerson, *op. cit.*, p. 389.

nomena." [144] Following Aristotle and St. Thomas he agrees that it is innate in man to desire to know for its own sake.[145] The explanation thus sought consists in the identification of the antecedent and the consequent. We are satisfied only when we are able to deduce relations from essence of things, as from a cause. For Meyerson, to explain is to identify.[146] Both of these principles Meyerson holds to be *a priori*, that is, "an instinctive motion of our mind, which subsequent reasoning has only to disengage.[147]

Consequently, when Meyerson explains the world we come in contact with, he does so on the basis of his causal principle. Now it is only this world, which we can directly contact, the world of nature, that he attempts to deal with. Such questions as miracles [148] and teleology and the divine free will,[149] he holds are beyond the realm of science and hence cannot be reduced to identity. "The aim of science is the discovery of rationality in things, and rationality means the reduction of differences to identity in such a form that they shall be absorbed without a remainder. . . . He holds also that this ideal is one that can never be completely achieved owing to the presence of a residual element of irrationality in nature, which in the end defies us." [150] In the light of science atomistic mechanism is the best explanation of reality.

If reality is to be explained on the grounds of an identity between that which is prior and that which follows, then there must be some unchanging foundation in reality, something to

[144] *Ibid.*, Author's Preface, p. 10.

[145] Herzfeld, *op. cit.*, p. 92.

[146] Metz, André, *Une Nouvelle Philosophie des Sciences: Le Causalisme de M. Émile Meyerson*, Paris, 1928, p. 43. Bridgman claims there are sufficient differences to warrant a separate discussion. P. W. Bridgman, *The Logic of Modern Physics* (New York, 1932), p. 80.

[147] Meyerson, *op. cit.*, p. 137.

[148] Meyerson, *op. cit.*, pp. 26-28.

[149] *Ibid.*, p. 318.

[150] Meyerson, *op. cit.*, Editor's Preface, p. 13.

take the place of the Aristotelian prime matter. Throughout all change, permanence and persistence of something is postulated; Meyerson claims the least inexplicable persistence is that of the material particle. It is not entirely comprehensible, but it is the best offered to us.[151] The nature of the atomism or mechanism which best explains reality is set forth by Meyerson in the following passage:

> It is permissible, therefore, to state that science really tends toward the reduction of all phenomena to a universal mechanism or atomism, defining these terms so as to include electrical theories, and remembering that the causality of being, so near a relative of the causality of becoming, demands that the elementary particles be made of a single matter possessing only a minimum of qualities, in such a way that it may be, to a certain extent, identified with space or its hypostasis, ether. Not that this reduction is really possible, nor that we can believe that this atomism constitutes the essence of things, nor that it is capable of offering a system free from contradiction—but because it is, amongst all the images which our intellect is capable of conceiving, the only one, which, satisfying at least to a certain degree our tendency in the direction of identity, offers at the same time real and sometimes surprising agreements with phenomena.[152]

It is sufficiently clear that the scientific intellect demands an ontological reality; it could not destroy the old one of common sense unless it were able to permit the substitution of a new one. From a consideration of the variations of things in time, "it may be admitted that there is in them a substance that is immutable and accidents that are changing."[153] Again it is easy to prove that common sense admits an object may change a part of its qualities and yet remain the same.

> Starting from the notion of the object as common sense presents it to us—that is to say, from a group of qualities—there is no motive for attributing purely mechanical qualities to the substance; one can, on the

---

[151] Boas, *op. cit.*, p. 20.
[152] Meyerson, *op. cit.*, pp. 410-411.
[153] *Ibid.*, p. 324.

contrary, choose freely among the qualities of the bodies those which one shall propose to consider as 'substantial.' Indeed, all the qualities of object cannot *remain,* certain ones are purely accidental.[154]

Both common sense and science then, declare that permanence is the essential note of material substances or objects. In fact, we could not have the concept of object, except it came from a world which suggested the concept of something persistent.

Thus one can affirm the impossibility of a law-conforming world void of constant quantities. But the source of this impossibility does not lie in the fact that this world is conceived as law-conforming; this is implied in the term world, which designates something external to our consciousness, a unity which can only be composed of substance. . . . In other words, substantiality cannot be deduced from the existence of law. The persistence of the relation, implied in the very concept of law, is not enough to give rise to the concept of common sense and creator of this latter, to see our sensations persist in time.[155]

This doctrine of substance, then, rests on the principle of identity in time. The antecedent must equal the consequent. The best explanation of this is that the atoms of each object in the phenomena, we might say, the objects on each side of the equation, are homogeneous. The only change is a change in spatial relations, which at bottom is irrational,[156] that is, "a *fact* which we believe to be certain, but which remains and always will remain incomprehensible, inaccessible to our reason, irreducible to purely rational elements." [157]

Since all reality is made up of homogeneous particles, the specific character of objects is determined by the mechanical arrangement of their atoms. From the fact that a multitude of compounds, varying widely in their properties, can result from the various combinations of comparatively few elements, Meyerson concludes: "Evidently the peculiar character, the *quid proprium,* of these substances appears to us as much less conditioned by the elements of which they are composed than

[154] Meyerson, *op. cit.*, p. 325.
[155] *Ibid.*, p. 435.
[156] *Ibid.*, p. 299 ff.
[157] *Ibid.*, p. 298.

by their grouping." [158] In saying that all the properties of an object flow from its internal, atomic structure he is echoing the cry of modern theoretical physicists.[159] Hence the essences, the *quid proprium*, of objects are determined quantitatively. On this hypothesis, there may be ultimate contradictions: "the agreement between thought and nature cannot be complete; but there is a real and profound analogy." [160] With this view of the essence of objects science has made tremendous progress—unlike the time when scientists held to qualitative theories.

> Consequently it becomes evident that, in forming these concepts of external objects according to the system of common sense, our understanding has followed no other rules than those which we recognize in scrutinizing the operations of science. It is always the principle of causality, the tendency to see, under the pressure of a need for explanation, everything persisting without change; there is also, in answer to this need, the same procedure in substituting a quantitative cause for a qualitative sensation.[161]

In the realm of the external world, where everything is explained by the groupings and spatial positions of bare atoms, there can be no such realities as sensible qualities; all is reduced to quantity. Yet Meyerson does not deny that we have various concepts of the different sense qualities as existing in objects outside and independent of us. This is explained by means of our innate causal tendency; we hypostatize our sensations.[162] What characterizes objects of common sense is that they are composed of hypostatized sensations. The existence of sensible qualities is only a deduction of common sense. "If, therefore, there must be identity, it is because we had supposed that our sensations really can exist, wander around (if we dare express ourselves thus) outside of ourselves." [163] The following is a brief summary of Meyerson's explanation of the process of homogeneous atoms.

[158] Meyerson, *op. cit.*, p. 427.
[159] Herzfeld, *loc. cit.*, p. 95.
[160] Meyerson, *op. cit.*, p. 407.
[161] *Ibid.*, p. 362.
[162] *Ibid.*, p. 372.
[163] *Ibid.*, p. 361.

When, starting either from an immediate impression of our senses, or from a series of observed phenomena, we succeed in endowing a body with a property, when we say this body is red or is inflammable, and when we see this property appear and disappear in the body, we certainly feel the tendency, if this quality seems sufficiently important to us, to ask the question, Where does it come from—where has it gone? Doubtless, as we have already said, this question will not be asked about roundness, but it will be asked about heat. Now, in stating it, we indicate that we are inclined to consider heat as something which persists in time and which consequently only brings about changes by altering its position. This is hypostatizing the quality and attributing to it the character of a substance, and this is the kind of explanation of the phenomena which our casual tendency will inevitably suggest to us.[164]

The unity of our reason is a favorite theme of M. Meyerson, so that he is careful to show that common-sense reasoning and scientific reasoning follow similar paths. It is true reason in each case follows the causal process in accounting for sensation. Their conclusions, however, differ widely; for common sense the world is qualitative, for science it is quantitative.

As soon as we advance a little in research, the world of common sense immediately appears to us what it is in reality—to wit, an introductory and very imperfect sketch of a scientific and metaphysical system. Indeed, at the very first step we are forced to abandon the supposition that things are what to us they seem to be; and as soon as we have made that first concession, we are immediately and irresistibly drawn toward the complete dissolution of this conception, which at first seemed so indubitable.[165]

Since the atoms themselves are all alike without sensible qualities, the object which is a group of atoms must be without sensible qualities too. The world of scientific reason is a world of colliding billiard balls. "Two particles of matter in collision may cause the appearance of a sensation—a color or a

[164] Meyerson, *op. cit.*, p. 334.

[165] This theme, the unity of reason, is developed in a work by Henri Sée, *Science et Philosophie d'après la doctrine de M. Émile Meyerson* (Paris, 1932).

sound, for instance—but by no stretch of the imagination can the color be said to exist in the particle of matter. Hence the best science can do is to accept their existence as a fact, and resign itself to not explaining them." [166] It is the action of objects, groups of atoms, on our senses that causes the sensations from which we derive our concepts of sense qualities. This action of bodies on our senses Meyerson classes with the irrationals.[166a] Consequently, according to Meyerson sensible qualities, as qualities, are purely subjective reactions to sensations caused by the various mechanical groupings of denuded, homogeneous atoms.

. . . . . .

From the viewpoint of a Scholastic, Émile Meyerson's location of qualitative essence is utterly unsatisfactory. He admits that " in mechanism sensation remains unexplained "; [167] since his sensible qualities are merely hypostatized sensations, then sensible qualities too, remain unexplained, for this process of hypostatization is only a tendency of common sense and finds no place in science. " The quality of the sensation, its *quid proprium*, is engendered by the organ, and does not exist external to it." [168] But if qualities exist only in the percipient subject, we would never become aware of the external, material world. It is by becoming aware of sense qualities that we become aware of material reality. Now if these sense qualities are not really in this external, material world, characterizing it, then we cannot be certain even of its existence. Dr. Coffey gives the following summary of the Scholastic refutations:

> And the reason of all this is simply that the concrete perceptual grounds for the concepts (of sensible qualities) used in such judgments are just as clear and cogent for intellect reflecting on their significance as is the concretely perceived 'externality' whereby we conceive and judge this whole domain (the material world) of data to be 'external' to, and

[166] Boas, *op. cit.*, p. 52.
[166a] Meyerson, *op. cit.*, p. 299.
[167] Meyerson, *op. cit.*, p. 323.
[168] *Ibid.*, p. 296.

'other than' the perceiver: so that it would be irrational and inconsistent to accept the intellectual verdict that this domain is an 'external reality' and to reject the intellectual verdict that it is a domain of 'external realities.'[169]

The scientific world of Meyerson is one of homogeneous atoms, "possessing only a minimum of qualities, in such a way that it may be, to a certain extent identified with space or its hypostasis."[170] Now, this "minimum of qualities" smacks of Locke's primary qualities, to which non-Scholastics from Berkeley to John Dewey,[171] and Scholastics of all times, have refused a greater reality than to the secondary qualities. No distinction should be made in this respect between primary and secondary qualities because the grounds for admitting or rejecting the external reality of both classes of quality are the same.[172] The explanation of these secondary sense qualities has long baffled scientists, but because of this difficulty of explanation, it is neither scientific nor philosophical to reject the real existence of something so evident to the normal man. This difficulty with regard to the secondary qualities has been well stated by Professor Hartshorne in his recent study of the philosophy and psychology of sensation.

The inclusion of the 'secondary' or sensory qualities in the concept of a physical thing has been found extraordinarily difficult to carry through consistently, even where the physical thing is conceived as nothing but a perceptum in the human or divine mind. . . . Yet if it is not the secondary qualities which form the concrete filling or content by virtue of which alone the geometrical concepts of physics can be accepted as adequate descriptions of reality, and not mere pieces of mathematical symbolism, what order of qualities then is it which fulfills this function?[173]

---

[169] Coffey, *Epistemology*, Vol. II, p. 85.

[170] Meyerson, *op. cit.*, p. 410.

[171] John Dewey, *The Quest for Certainty* (London, 1929), p. 118.

[172] Coffey, *op. cit.*, p. 108.

[173] Charles Hartshorne, *The Philosophy and Psychology of Sensation* (Chicago, 1934), p. 17.

Strangely enough, Professor Hartshorne, like Émile Meyerson, rejects the reality of these sensible qualities and gives an agnostic answer. Meyerson accepts the reality of his "minimum of qualities" because reason following the causal principle demands it. Scholastics have always maintained that man has no foundation for rejecting the validity of any of his natural faculties, when normal and employed with their proper objects. If men were to reject the external validity of sense perception and appeal in every case to reason alone, chaos would replace order in the realm of thought and reality.

Were we to grant that the sensible qualities are merely subjective sensations, still no logical explanation could be given for Émile Meyerson's causal theory. How can these minute particles with a minimum of properties cause the multitude of sensations of various qualities in us? Certainly he is most logical in attributing by means of his causal principle, these internal sensations to external objects. But then in denying that the qualities of these sensations have any external reality, as qualities, he apparently denies the principle of sufficient causality.[174] The arrangement of atoms, he claims, may cause the sensations of savor or odor. Meyerson seems to realize this theory does violence to common sense, but instead of rejecting it he remains satisfied with saying that it is irrational.

> But if I suppose that the organism in question has a sensation of light, this sensation remains inaccessible to mechanical explanation, as does my own sensation. To say that it is a movement has no meaning; for my sensation of light, I am immediately certain, has nothing in common with that of movement. . . . It must be remembered that what we affirm we do not know here is solely the manner by which mechanical movement is transformed into sensation. As to the two terms of the transformation, we believe, on the contrary, we know them perfectly.[175]

[174] Even in the case of those who hold the representationist theory (some Scholastics are in this class), impressions of color, sound, taste, smell, etc., demand corresponding external causes just as extension, or the primary or common sense percepts. Cf. Abbé Coste, "L'Idealisme Objectif," in *Revue du Clergé Français*, tom. 35 (1er Août, 1903), pp. 533-551.

[175] Meyerson, *op. cit.*, p. 397.

With such a divergence between the term in the object, which is purely quantitative, and the term in the subject, which is qualitative, certainly no rational explanation can be given. All we can know about things, in such a system, are ideas which in no way resemble them; they are simply formulae, whose truth consists in designating the series of sensible effects that a cause has produced, and is apt to produce again.[176] We claim that both terms are qualitative; "*Operatio sequitur esse*"; "*Qualis est operatio talis est natura,*" are basic Scholastic aphorisms. We claim the sensible qualities are really as we perceive them to be: "*Scientia quae est in actu est idem quod res.*"[177] Every man who has been kept in blissful ignorance of modern metaphysics and psychology, or who ceases to be baffled by them, believes in the objectivity of the sensible qualities. Émile Meyerson, himself, realizes the weakness of his theory of quality. Speaking of his poor denuded atom, he says:

> It is incomprehensible at bottom, you say? I agree with you, but can you offer a more solid starting point? If not, we shall keep to this one, for we must at any price have something which persists in time, and, neglecting entirely what it contains that is at bottom inexplicable and contradictory, we shall try to explain with its aid the sensible world.[178]

The solid system which Émile Meyerson seeks is the system of Aristotle and St. Thomas, developed and transmitted by the Scholastics, and today the living system of the Neo-Scholastics.

Anthony John Halpin.

Manhattan College,
New York City.

[176] Farges, *op. cit.*, p. 76.
[177] St. Thomas, *De Anima*, III, 5.
[178] Meyerson, *op. cit.*, p. 97.

THE ARGUMENT FROM MOTION IN ARISTOTLE AND AQUINAS[1]

OF all the arguments which are famous in the history of philosophy none has enjoyed a longer lease of life, or has been more frequently called into service, than Aristotle's proof of the existence of a prime mover. In its original setting it is, indeed, impressive. Its author believed himself to have already established three propositions which serve as its foundations: (1) that the universe is without beginning or end, or in the language of the Schoolmen *sempiternal*; (2) that motion is also sempiternal; (3) that matter is pure potentiality devoid of spontaneity and, therefore, incapable of functioning as the source of motion. The main-spring of the argument is, of course, the proposition that an ontological regress cannot proceed to infinity; whence it follows that such a regress must terminate in an ultimate mover which is itself unmoved.

In working out the details of his proof Aristotle is chiefly concerned with motion in space—with local motion, as the neo-Scholastics phrase it—and he is so because it is, so he tells us, the primary form of motion. None the less he also takes into account qualitative change and quantitative change, which last manifests itself under the two forms of augmentation and diminution. In the third book of the *Physics* (Ch. 1) he includes as well, under the head of motion, generation and corruption, coming-to-be and passing-away. But in the fifth book (Ch. 1) he narrows down his classification so as to exclude them. This inconsistency on his part was carefully pointed out by St. Thomas Aquinas, who seems to have regarded it, however, as a mere matter of terminology. And in this he was, I think, clearly right. For generation and corruption obviously involve both qualitative and quantitative change, as well as local mo-

[1] A paper read at the meeting of the Southern Society for Philosophy and Psychology, Atlanta, Georgia, April 10, 1936.

tion. Moreover in the eighth book of the *Physics* (Ch. 6) they are grouped with the other kinds of motion which are taken together as forming a common point of departure for the proof of a prime mover.

A similar inconsistency was displayed by Aristotle with regard to mental operations. His God is possessed of life and thought, yet it is stated that he is wholly devoid of motion. Nevertheless in the eighth book of the *Physics* (Ch. 3) we find Aristotle arguing that motion cannot be condemned as mere appearance because the false belief in its reality will then be succeeded by the true belief in its unreality, and such succession is itself motion. And he adds that to say that motion is in the imagination, and not in the external world, does not get rid of it, since imagination is a kind of motion.

This variation in usage gives Aquinas ground for asserting that in reality there is no disagreement between Aristotle and Plato on this subject. Plato, he remarks, extended the concept of motion to include any operation, hence he was quite consistent in speaking of the source of motion as self-moving, inasmuch as it possesses both knowledge and desire; whereas Aristotle, on the other hand, in speaking of the prime mover as unmoved, intended only to assert that God is not involved in physical change, and did not mean to deny that intellectual activity can be predicated of him. (*Con. Gen.* lib. I. cap. XIII.; *Phys.* Lib. VIII. cap. XII.) It is rather surprising that St. Thomas should have thought it worth while to make this point, for, in the first place, to admit that the divine intelligence could be involved in successive acts of cognition would be fatal to his own theory, and, in the second place, it directly contradicts Aristotle's statement in the ninth chapter of the twelfth book of the *Metaphysics* to the effect that the divine thinking is without variation or change, inasmuch as its object is itself. It is quite evident, however, that no such contradiction is intended, for Aristotle and Aquinas were at one in main-

taining that the divine intellection is a timeless act. What is extraordinary is the fact that the term *motion,* instead of being repudiated by Aquinas, is here obviously interpreted in a timeless sense.

In formulating the argument for a prime mover St. Thomas re-states the thought of its author with great fidelity, even to reproducing the very inconsistency to which he has himself called attention. Thus, in his exposition of the proof in the thirteenth chapter of the first book of the *Contra Gentiles,* it is quite clear that it is physical change which he has in mind, and primarily local motion. But that for him, as for his master, it is change as such, and not any particular kind of change, that is the real foundation of the argument is very evident when we turn to the first book of the *Summa Theologica* (q. 2: a. 3. ch. 2). Here he considers the objection that the theistic hypothesis is gratuitous since phenomena can be more economically accounted for by a simple dualism which admits only the reality of physical objects and human minds. St. Thomas replies that neither the physical nor the mental world is self-sufficing, and therefore in each sphere an ontological regress is inevitable. "Since Nature," he writes, "operates with reference to a definite end and under the direction of a superior agent, those things accomplished by Nature must be referred to God as their first cause. Similarly those things which are done purposively must be referred to some higher cause which is not human reason or will, for these are mutable and subject to passing away, and all things mutable and subject to passing away must be referred to some first principle immovable and necessary in itself." In this passage, it will be observed, physical and mental change are put exactly on the same footing. Either provides an adequate basis for the proof of a prime mover. Consequently it seems indisputable that in St. Thomas's eyes the argument reposes upon the simple fact of change, and that the kind of change is irrelevant.

It is also important to notice that a temporal *prius* is no more implied by Aquinas's argument than by Aristotle's. Upon this point the Angelic Doctor is most explicit. Philosophy, he insists, cannot possibly prove that the world has not always existed. That it did not always exist is known only through revelation. Accordingly it is better to proceed upon the assumption that the world has always existed, and that the argument from motion does precisely this is one of its chief merits. It is not an infinite temporal regress which Aquinas declares vicious, but an infinite ontological regress. His point is simply that the changing implies the permanent, that what comes to be and ceases to be can be explained only by that which is. As Professor A. E. Taylor has so well phrased it, "the argument is simply from the temporal, conditioned and mutable to something eternal, unconditioned and immutable as its source. The nerve of the whole reasoning is that every explanation of given facts or events involves bringing in reference to further unexplained facts; a complete explanation of anything, if we could obtain one, would therefore require that we should trace the fact explained back to something which contains its own explanation within itself, a something which is and is what it is in its own right; such a something plainly is not an event or mere fact and therefore not included in 'Nature,' the complex of all events and facts, but 'above' Nature."

In other words the so-called argument from motion is in fact identical with the argument *ex contingentia mundi,* as Leibniz termed it. The reasoning is the same in both, the only difference is the mode of expression. The latter argument derives from Avicenna, and was doubtless suggested by the Plotinian theory of emanation, of the overflowing of the One. As the western world became acquainted with Arabic thought and culture, and through it with the metaphysical treatises of Aristotle, these two arguments passed into its ken. We find the argument from the contingency of the world—or, to employ

Scholastic phraseology, the argument from the possible and the necessary—in the *De Processione Mundi* of Dominicus Gundissalinus. It also appears in the work of the Victorines, in the *De Sacramentis* of Hugo (lib. I, cap. VII.) and in the *De Trinitate* of Richard (lib. I, cap. VI, ff.). As stated by St. Thomas its contention is, briefly, as follows. In the external world things are observed to arise and pass away. But that which is generated and suffers corruption owes its being to something other than itself. Accordingly, since an infinite ontological regress is vicious, it follows that there must be something which exists always and of itself. It seems quite clear that this is precisely the same reasoning as that embodied in the argument from motion.

Possibly it might be contended, however, that, just as motion—in the strict sense of the term—excludes generation and corruption, so generation and corruption must not be taken to include qualitative and quantitative change, or local motion; and that, consequently, it is possible, upon this basis, to vindicate the genuine individuality of the two proofs. To this a two-fold reply can be made. In the first place it can be urged that all justification for any such distinction is destroyed by the fact that St. Thomas, in stating the former argument, employed the term motion, not in its narrower but in its wider significance, as we have seen. And in the second place it can be maintained that he was entirely right in doing so, that in each case the whole force of his contention is the implication of necessary being by contingent being, and that the type of contingency, whether substantial or accidental, is irrelevant. But the problem becomes more complicated when we observe that Aquinas accords a place to a third proof which likewise purports to be genuinely distinct, namely that from efficient causality. The source of this last is to be found in the second book of the *Metaphysics* (Ch. 2) where Aristotle discourses concerning the impossibility of an infinite causal regress. He

remarks that we cannot derive flesh from earth, earth from air, air from fire, and so on indefinitely. On the contrary, there must be some ultimate material cause, and the same conclusion, he insists, holds true for any series of final or formal causes. To Avicenna this line of thought suggested the possibility of demonstrating the existence of God by a proof based on the vicious character of an infinite regress in efficient causes. His formulation of it was a part of the legacy inherited from Islam by Christian thinkers, and we find his argument re-stated by Alan of Lisle (*De Arte Fidei,* Lib. I, 8), and by Albertus Magnus.

The question, then, arises, is there any valid distinction upon the basis of which the individuality of this argument can be preserved, or must it inevitably coalesce with the other two into a single proof? To answer this query we must first take account of the Scholastic distinction among efficient causes which is expressed by the two phrases *causa secundum fieri* and *cause secundum esse.* A cause *secundum fieri* is responsible only for the becoming, and not for the being, of its effect. Thus an architect is the cause of the becoming of the house which he constructs, but its being depends upon its material cause, upon the stones or bricks or planks which compose it. On the other hand illumination and warmth depend not only for their origination but for their persistence, not only for their becoming but for their being, upon the continued activity of the source of illumination or of heat. Hence their causes are at once *causae secundum fieri et secundum esse.* Accordingly a second question follows upon this distinction, does the argument from efficient causality envisage both these kinds of efficient causes, or only one of them, and if so, which? It does not seem to me necessary to attempt a solution of this problem. It is important to make the distinction clear, since so much stress is laid upon it by Neo-Scholastic writers, but once it is made clear we can see that it is totally irrelevant. Whether

we contemplate only the coming-to-be of a certain class of entities, or both their coming-to-be and their subsequent conservation, is a question which has no bearing upon the force of the argument we are considering. All that matters is that they should depend for their existence upon something other than themselves, and since we observe that they do come into existence we infer that they are so dependent. This is the whole point of the proof, and it is precisely the same point as that made by the argument from motion and by the argument from the possible and the necessary, whence it follows that these three are one.

In corroboration of this conclusion, if it needs corroboration, it may be well to quote a passage from the *Summa Theologica* (tractatus primus, q. I, cap. I, 3.) of Alexander of Hales where the three strands are woven into a single cord. "John Damascene," we read, "proves the same (i. e. the existence of God) by means of the concept of causality. 'Everything which is, is either caused or uncaused; but everything that is caused is susceptible to change; either by choice, as in the case of a spiritual substance, or through generation and corruption or alteration or local motion, as in the case of corporeal things; therefore they pass from non-being into being. Moreover those things the being of which arises from change are subject to change and mutability; and conversely those things which are subject to change have their beginning in change.' Since, therefore, all substances of this world are subject to change, they all come into being from non-being, therefore they are caused; but nothing is caused by itself; hence it follows that there is an unmoved substance by which all things are caused." Here we have motion, efficient causality, and contingency clearly expressed and clearly equated. The fact that this passage is immediately followed by another statement of the proof from efficient causality disturbs our conclusion no more than does the fact that St. Thomas states the three so-

called arguments side by side as though they were mutually independent. The mediaeval mind loved a plurality of proofs, and was capable of introducing the most hair-splitting distinctions in order to multiply them. And especially any student of Aquinas, after observing the way in which arguments nominally distinct actually duplicate and intersect and partially reproduce one another, must feel that to attempt to separate the various trains of reasoning thus involved is like trying to pull jack straws out of a heap.

As to which name best indicates the single train of reasoning which we have found to underly the arguments from motion, contingency, and efficient causality opinions may well differ. "The argument from motion" is the term most reminiscent of its origin, but it has an unfortunate tendency to divert the mind from the real point to the consideration of local motion. "The argument from efficient causality" is a name which easily leads to confusion with the argument for a first cause in a temporal series. Leibniz's phrase, *argumentum ex contingentia mundi*, appears the most adequate, but it, too, is susceptible of mis-interpretation. For it is so easy to read into it the implication that the course of events might have been other than it actually has been, and contingency in this sense has nothing to do with the argument before us. Aquinas's own phrase, *ex possibili et necessario,* suffers from the same disadvantage. And, indeed, the difficulty of nomenclature is not to be wondered at. For the contention of Aristotle and Aquinas is, in truth, two-fold:—That the transient implies the permanent, and that dependent being implies self-subsistent being. Hence the very vagueness of Kant's title, "the cosmological proof," is not without merit.

But, by whatever name it be known, this famous proof is certainly a veteran among arguments, having seen almost continuous service for well over two thousand years. The general impression probably still is that it met a glorious death at the

hands of Kant. Neo-Scholastic writers, however, have advanced extremely cogent reasons for rejecting this view. Of course for those who hold, as Kant held, that synthetic *a priori* propositions do not hold good of things-in-themselves, or for those who deny, as he denied, that any train of reasoning can be legitimately carried beyond the limits of experience, not only this proof, but every other deductive argument, will be ruled out of court. But, for those who think otherwise, Kant's criticism of the cosmological argument has a vital interest. It involves, he tells us, the assumption that necessary being is identical with the *ens realissimum,* and thus presupposes the validity of the ontological argument. To test the truth of this observation it is advisable to turn from Aristotle, who never had the good fortune to hear of the ontological argument, to St. Thomas, who had heard of it, and who explicitly rejected it. Do we find him indulging in this fatal assumption, and without further justification drawing the equation necessary being = *ens realissimum*? By no means. Had he done so his task would have been comparatively simple. But so far is he from doing so that he devotes some eighty-eight chapters of his *Contra Gentiles* to determining what characteristics are implied by the notion of necessary existence. It is only as he nears the end of this long, closely knit chain of reasoning that he arrives at the idea of God in the full theistic sense of the word. "The proof of God," as M. Sertillanges has said, "is the task of the entire Theodicy," and, in my judgment, no more profound observation has ever been made with respect to St. Thomas. Now, whatever mistakes he may or may not have made in the course of this gigantic achievement, the one thing that Aquinas seems most clearly not to have done is to attempt anywhere to step over the impassable gulf between essence and existence, between the world of thought and the world of concrete actuality. It appears, then, that his argument, and Aristotle's argument, is

still alive, and to the Neo-Scholastics we owe a debt of gratitude for having pointed out the fact.

But, if this be the case, it is desirable that the whole question be gone into anew, that we should try to discover just where the argument really takes us, whether it leads us toward a transcendent Deity, as Aristotle and Aquinas thought, or toward an all-inclusive Absolute. St. Thomas's reasoning, which makes explicit so much that is implicit in Aristotle, is yet needlessly compromised by his doctrine of the *gradus entis*—which, indeed, he derived from the Metaphysics (Lib. II, cap. I)—and by the negative theology which he inherited from the Pseudo-Dionysius. But I would urge that these accretions mask the real strength of the position, and I venture to suggest that, upon the same foundation which these two great thinkers utilized, a simpler and more convincing argument may yet be built.

ROBERT LEET PATTERSON.

Baltimore, Maryland.

WHAT ARE THE PREDICABLES?

MANY a teacher has experienced a feeling of dissatisfaction with the common explanation of the Predicables. How often has not the question arisen "What precisely *are* the Predicables, and how do they differ from the Categories?" Curiously enough, the question occurs more frequently to the mind of the teacher than to that of the pupil. The constant recurrence of this question shows that there is obscurity or confusion somewhere in the usual account of the predicables.

It is not very helpful to answer the question by saying that the predicables are reflex, and the categories, direct universal ideas, especially as a genus is put down as a predicable, and therefore, as a reflex idea, and a category is put down as a supreme genus, that is, as a genus. This would mean that the categories, as well as the predicables, are reflex universal ideas. One text-book will say that the predicables are the five ways of predicating; another, that they are the five different relations which a predicate may bear to a subject. Since, therefore, a genus is a predicable, it must, on this explanation, be a way of predicating or a relation of predicate to subject. But when an example of genus is given, it does not answer to the definition. Thus, it is said that animal is a genus, viz., the genus of man. But animal is not a way of predicating, nor is it a relation of predicate to subject.

It is one thing to say of something that it is a relation; it is quite another thing to say that it is called by a certain name because it *has* a relation. For example, John Brown is not a relation, but he is called by the name of "father" because he has a relation. The word "genus" may be a relative term, but a relative term does not mean that the thing to which it is applied is a relation, but that the thing is related to something else.

It is not the names of the individual predicables that have caused the trouble, nor is it the examples to which they have been applied. The names of the predicables are familiar to every student, especially in their adjectival form; for example, "generic," "differentiating" and "accidental." But what has been found puzzling is the word "predicable" itself, the definitions of the different predicables, and the adjustment of examples to the definitions. The application of the definitions has seemed to give rise to so many inconsistencies. The difficulty of finding workable definitions of the predicables ought not to prove insurmountable, if we fix our attention upon the manner in which the names of the predicables are handled and applied, and especially upon the purpose which the treatment of the predicables is designed to serve, or which, at least, it is made to serve. Let us consider this purpose.

The purpose of the treatment of the predicables is to prepare the way for the discussion of Definition. It is important to remember in this connection that, if an expression is put forth as a definition, it must be *compact*, or it is not a definition. By "compact" we mean that the expression contains nothing over and above what is necessary to differentiate what a term stands for from everything else. It is chiefly this quality of a definition which has imposed upon the treatment of the predicables its character and drift. If we put out of account the abstract term, the kind of term which is commonly defined is the class name. The ideal definition would be one which should set forth what is most fundamental in the class which is denoted by the class name. Such a definition is not often attainable in the case of the classes of objects with which we are most familiar, and in consequence, the utmost we can ordinarily hope for is to indicate the most fundamental of those attributes which are known to us. That which is most fundamental in a class is what is meant when we speak of the *nature* or *essence* of the class. This is the strictest sense of the words

"nature" and "essence," though it is not unusual in philosophy and the other sciences to employ them in a wider sense.

The kind of definition we are aiming at is best achieved by indicating the characteristic attribute of the narrowest class within which our class is included, provided such attribute is fundamental. Thus, the class of men is included in the class of animals, and also in the class of bipeds and in the class of mammals; and both bipeds and mammals constitute narrower classes than animals. But the attribute which is formally expressed by the word "animal" is more fundamental in the case of men than the attribute which is formally expressed by "biped" or "mammal." Hence, "animal" is to be preferred to "biped" and "mammal" in the definition of "man."

One important advantage in the selection of the characteristic attribute of the narrowest of the classes which embrace our class is, that this attribute sums up in itself the characteristic attributes of all the wider classes within which the class is included. Thus, animals have the characteristic attributes of such wider classes as are denoted by the terms "organism," "body" and "substance." Hence, the expression of the characteristic attribute of the next narrowest class gives us not only deeper, but more extensive, information about our class than could otherwise be compressed into the short compass of a definition.

The selection of the characteristic attribute of the next narrowest class has a second advantage, in that this attribute connects our class with those classes which are most closely related to it, and this serves to bring before us the *system* which is constituted by the classes in the real world.

When a class of objects presents itself for study, it confronts us with a vast and diversified array of attributes. Thus, in the class of men are found such various attributes as sentient, rational, capable of laughing, white, learned, strong, warm-

blooded, vertebrate, mortal, and so on. The logician arranges all the attributes of the class under five or six heads, called the Predicables. The principle upon which this arrangement is based will be indicated below in the definition of the predicables. The heads of the predicables are the Genus or Generic Attribute, the Specific Difference or Differentia, the Species or Class Characteristic, the Property, the Inseparable Mark and the Accident. What is here called the inseparable mark is by some authors called the inseparable accident.

The terms "genus" and "generic attribute" are here used as synonymous; in like manner, the terms "species" and "class characteristic." In the chapter on Logical Division, "genus" means a wide class which contains within it a number of narrower classes, and "species" means one of such narrower classes. As to the kind of terms we are to employ to express the various attributes, it is a matter of indifference whether they be concrete or abstract, provided we are careful not to misinterpret the context in which they are employed. For example, either of the terms "animal" or "animality" may be employed to indicate the generic attribute of the class of men.

If, then, we note carefully the examples to which the names of the various predicables have been applied, and if we bear in mind the purpose which the doctrine of the predicables has in practice been made to serve, we shall be equipped with a test for judging the correctness of our definitions of the predicables. Let this test be applied to the following definitions.

The Predicables are the attributes of a class considered in reference to their fitness to explain or manifest the nature of the class. Or we may put it in this way: The Genus, the Specific Difference, the Species, the Property, the Inseparable Mark, and the Accident are called the Predicables, and one or other of these names is applied to every attribute of a class when the attribute is considered in reference to its fitness to

explain the nature of the class. The fitness of an attribute to explain the nature of a class is measured, first, by the *depth,* and next, by the *amount,* of information which it conveys concerning the class. The Genus or Generic Attribute is an attribute which all the members of the class have in common with other objects and which is best fitted to explain the nature of the class. Thus, animality is the generic attribute of the class of men. As will be clear from what is noted below, strict accuracy would require us to employ here the name "proximate genus" instead of "genus." The unqualified expression "*the* genus of a class" always means "the proximate genus of a class." The Specific Difference or Differentia is an attribute which is found in all the members of the class, but not in any of the other objects having the generic attribute, and which again is best fitted to explain the nature of the class. For example, rationality is the specific difference of the class of men. The Species or Class Characteristic is the generic attribute and the specific difference combined. Thus, rationality and animality combined constitute the class characteristic of the class of men. When we employ concrete language, we express the species or class characteristic of the class of men by the term "rational animal"; and this, it will be noticed, is the definition of "man." The class characteristic is also called the *essence* of the class. The generic attribute and the specific difference are called the *essential* attributes. A Property or Peculiarity is an attribute which is found in all the members of the class and not elsewhere, but is not best fitted to explain the nature of the class. Thus, capability of laughter is a property of the class of men. An Inseparable Mark is an attribute which is found in all the members of the class and in other objects as well, but is not best fitted to explain the nature of the class. For example, warm-bloodedness is an inseparable mark of the class of men. An Accident is an attribute which is not permanently present in the members of

the class or is found in only some of them. Thus, illness and whiteness are accidents of the class of men. As is evident, an accident is least fitted of all the attributes to explain the nature of the class.

It is to be observed that the combination of generic attribute and specific difference performs the function of marking off the class from all other classes, and thus it gives us a definition of the class name. The generic attribute and the specific difference are called *essential* attributes in the most rigorous use of the word "essential"; the remaining predicables are called *non-essential.* Scientists, however, are accustomed to give a wider sense to "essential," so that it applies to all the predicables except the accident, and this predicable they call "non-essential." The generic attribute, the specific difference, the property, and the inseparable mark get the name of "essential" because none of them is ever absent from any member of the class, whereas it is a common occurrence for the accident to be absent, and therefore, it is called non-essential.

Another point to be observed is that, when "essence" and "essential" are used, they refer to the class; and when we say that the essence is unchangeable, we mean that the class, as a class, is unchangeable. The essence is the essence of the *class,* not of an individual object, except so far as the object is a member of the class. Hence, if we are asked, "What is the essence of Robert Smith?" we cannot reply till the class is mentioned. The essence of Robert Smith as a member of the class of men is expressed by "rational animal"; his essence as a member of the class of animals is expressed by "sentient organism"; his essence as a member of the class of orators is expressed by "man endowed with the power of persuasion in public speech"; his essence as a member of the class of things that are asleep is expressed by "sleeping animal." An object, viewed as a member of a given class, undergoes an *accidental* change when the change leaves it a member

of that class; it undergoes an *essential* change when the change removes it from that class.

The word "essence," in its strictest sense, is commonly defined in philosophy as that by which a thing is what it *is*. This definition needs sharpening, if it is not to give rise to confusion, and if it is to be available for any useful purpose. Now a thing *is* whatever may be truly affirmed of it. Let us suppose that Robert Smith is physically weak:—shall we say that his essence is that by which he is physically weak? Certainly this is not what the philosopher has in mind when he uses the word "essence" or "nature." When we are dealing with finite things, the word "essence" has reference to a *class*, not to an individual object considered apart from a class; and it is always what is most fundamental in the class that is signified by the word. In attempting to set forth the nature or essence of a class, we select those attributes which come closest to manifesting what is most fundamental in the class. We rarely define a proper name or other singular term; and hence, we do not attempt to exhibit the essence of what is signified by such a term. We do not ask for the genus and the specific difference of Robert Smith. To say that he is a rational animal is not to give a definition of Robert Smith. The definition of a term differentiates what the term stands for from everything else; but "rational animal" does not differentiate Robert Smith from everything else. It does not differentiate him, for instance, from any other man. What we are ordinarily concerned to define is a class name, and a class name stands for a class. If we wished, therefore, to construct a definition of "essence" which should be in some way parallel to the one we have been discussing, we could do it as follows: The essence of a class is that by which the class is what it fundamentally is. And then, so far as the word "essence" is applicable in the case of an individual object, we could say that its essence, as a member of a particular class, is that by which it is what it fundamentally is as a member of that class.

In order to prevent misapprehension of the terms which have been employed in this paper, two additional points should be noted. First, "predicable," the noun, must not be confused with "predicable," the adjective. As an adjective, "predicable" means affirmable or capable of being predicated. Not everything that is predicable is *a* predicable. For example, "the highest mountain on earth" and "the reigning King of England" are predicable of Mount Everest and Edward VIII respectively, but they are not predicables. "A predicable" is short for "a predicable of a class"; and in case the class is named, it is short for "a predicable of *the* class." Similarly, "a genus" is short for "a genus of a class," just as "an attribute" is short for "an attribute of a class," when it is not short for "an attribute of an object." That alone deserves to be called a predicable which can be predicated of a class or of a section of a class, and it deserves to be called by this name only so far as it can be so predicated. Moreover, it is not called a predicable unless the class is named in the subject of the proposition; and then the predicate is called a predicable of the class which is named in the subject. Thus, in the proposition, "Some men are clever," the word "clever" stands for a predicable of the class of men; in this case the predicable is an accident. But, though "clever" is predicable of Robert Smith, it does not stand for *a* predicable in the proposition, "Robert Smith is clever," because the name of a class does not occur in the subject of the proposition.

The second point to be noted is this:—It is not uncommon to meet such propositions as "Animal is the genus of man" and "Man is the genus of poet." These propositions are abbreviated expressions for the following: "The class characteristic of the class of animals is the generic attribute of the class of men"; "The class characteristic of the class of men is the generic attribute of the class of poets."

It has already been remarked that the characteristic attri-

bute of a given class sums up in itself the characteristic attributes of all the wider classes in which the given class is included. The characteristic attribute of a wider class is called a genus or generic attribute of all the classes included in the wider class. If we analyze the generic attribute of a given class till we have reached the characteristic attribute of the widest class that can contain the given class, this attribute is called the Supreme Genus of the given class. This series of ever-widening genera is called an *order of genera.* We may, therefore, lay down the following definitions:

The Proximate Genus of a class is the genus which in a given order implies all the other genera in the same order. For example, the word "animal" expresses the proximate genus of the class of men. The Supreme Genus of a class is the genus which in a given order implies none of the other genera in the same order. For example, the word "substance" expresses the supreme genus of the class of men. A Subaltern Genus is a genus intermediate between the proximate and the supreme genus. Thus, the word "organism" expresses a subaltern genus of the class of men.

Now as to the Categories. Aristotle maintained that all genera whatever are included in one or other of ten great orders. The supreme genus or generic attribute in each of these orders he called a Category. Accordingly, if we put aside such terms as "thing" and "being," the names of the categories are the most general and the least descriptive of all terms that can be employed in referring to an object. This is brought out in the following illustration, in which the names of the different categories are inserted in parentheses. In speaking, then, of the objects of a class in the most general terms which it is possible to use, we refer to them as follows: 1. as subsisting (Substance); 2. as being so large or so many (Quantity); 3. as being such and such (Quality); 4. as being related to other objects (Relation); 5. as acting (Activity);

6. as being influenced by other objects (Passivity); 7. as being disposed as regards distance and direction with reference to other objects (Place); 8. as being contemporaneous with or prior or subsequent to other objects (Time); 9. as being disposed in a given way with reference to their parts (Posture or Shape); 10. as being clothed or otherwise accoutred (Appurtenance).

The question, "Is a genus a predicable or a category?" does not admit of a direct answer, because it is ambiguous. The word "genus" may mean—as it does in the chapter on Logical Division—a wide class which embraces a number of narrower classes: in this sense, a genus is neither a predicable nor a category. Again, "genus" may mean an attribute of a class, as it does when it is used as a synonym for "generic attribute": then it is always a predicable.[1] If it is the proximate generic attribute or genus of the class—as animality in the class of men—it is the first in the list of the predicables as they were defined above. If it is a subaltern genus or the supreme genus—as organism and substance in the class of men—it is an inseparable mark, because it is not best fitted to explain the nature of the class. If it is the supreme genus of the class, it is at once a predicable and a category. Hence, all the categories are predicables, but it is by no means true that all the predicables are categories.

One final remark should be made. With the exception of "substance" and "appurtenance," the names of all the categories are abstract. Again, abstract terms have been employed above to illustrate the definitions of the various predicables.

[1] It is a genus in the sense of a wide *class* that is divided in logical division; but in dividing a class we do not divide a genus in the sense of a generic attribute; in this sense we *add* to the genus. Again, "*the* genus" or "the proximate genus" is the name of one of the five or six distinct *kinds* of predicables; but, though every other genus besides the proximate is a predicable, it falls under one or other of the five or six heads which were named above, and it does not constitute a separate *kind* of predicable.

Now a term which stands for a class is usually concrete, and we have said that the predicables and the categories may be predicated of a class or of a section of a class. But when we speak with literal accuracy, we cannot employ an abstract term by itself in the predicate position of an affirmative proposition which has a concrete term for its subject. It would be meaningless to say "Some men are illness and activity and passivity." When we say of a given abstract term that it may be predicated of something, what we mean is, that the concrete equivalent of the abstract term may be so predicated. Abstract terms are a mere convenience of language, a substitute for more literal, but clumsier, modes of expression. The vast majority of them are nouns, and nouns are notoriously easier to manipulate than the other parts of speech. The abstract term presents us with a handy mode of describing an object, and in many contexts it could not be replaced by a concrete literal expression, except at the sacrifice of smoothness or terseness.[2] However, the abstract terms in the meaningless proposition we have just mentioned may be replaced by concrete terms which are equally general, and the proposition may in this way be made to convey sense, thus: "Some men are ill and acting and being influenced." "Ill," "acting" and "being influenced" stand each of them for a predicable in this proposition; and though "acting" and "being influenced" stand for categories or supreme genera of certain classes, they neither of them stand for the supreme genus of the class of men. In the case of the class of men, "substance" stands for the supreme genus.

JOHN J. TOOHEY.

Georgetown University,
Washington, D. C.

[2] Cf. "The Philosopher's Evil Genius," *Thought*, June, 1934.

DISCUSSION

THE SPIRIT OF MEDIAEVAL PHILOSOPHY [1]

The title which Étienne Gilson has chosen for his Gifford Lectures of 1931-32 [2] corresponds in wording and meaning to Martin Grabmann's recently published *Mittelalterliches Geistesleben.* Both authors have the same general objective, i. e., to demonstrate "that the Middle Ages produced besides a Christian literature and a Christian art . . . this very Christian philosophy . . ." (Gilson). Both authors have chosen the historical method of approach, supporting their demonstration with a wealth of factual material, the result of scholarly labor in the fields of history and philosophy. But while Gilson's work reflects the brilliant lucidity and rhetorical elegance of the Latin mind, Grabmann presents his findings as usual in the heavy set and frame of painstaking and minute analysis and interpretation of his original source material. There is no more trustworthy guide on the highways and by-ways of mediaeval philosophy than this German scholar whose penetrating mind happily combines clear reasoning with the firm grasp of intuition. It is to these qualities that we owe the treasury of so many newly discovered manuscripts and editions. Clemens Baeumker and Martin Grabmann have provided us with the tools which open up the avenues to mediaeval Aristotelianism, to the works of St. Albert the Great, Siger of Brabant and the Latin Averroists, the Latin writings of Master Eckhart and Dominican mysticism in mediaeval Germany. The following pages will confine themselves to a descriptive analysis of the most significant parts of Grabmann's new work, a collection of articles and papers dealing with mediaeval scholasticism, mysticism, and Christian Aristotelianism. Grabmann who, in 1935, on the occasion of his sixtieth birthday, was himself honored by the presentation of a *Festschrift* in two volumes entitled *Aus der Geisteswelt des Mittelalters,* has dedicated this present volume to Heinrich Finke, that astute Nestor among Catholic historians in Germany who recently celebrated his eightieth birthday.

According to our author's own statement *Aristoteles im Mittelalter* is

[1] Martin Grabmann, *Mittelalterliches Geistesleben* (Munich: Max Hueber, 1936), Bd. II. Pp. ix + 649.

[2] Étienne Gilson, *The Spirit of Mediaeval Philosophy,* transl. by A. H. C. Downes (London, 1936).

his main theme in this second part of his collected *Abhandlungen zur Geschichte der Scholastik und Mystik.* A considerable number of the articles contained in this volume have never been published elsewhere. Other contributions have been revised, complemented and integrated by consulting the more recent publications. The opening article deals with St. Augustine's influence on the adaptation and evaluation of classical antiquity in mediaeval times (pp. 1-24). In the schools of the Grammarians at Thagaste, Madaura, and Carthage St. Augustine had become acquainted with classical grammar and rhetoric as well as with many of the classical poets, orators, and philosophers. We know how he admired Virgil and how he was aided in his search for truth by Cicero's *Hortensius.* In Milan he was introduced to Platonic wisdom by way of Plotinus, whom he read in the translation of Marius Victorinus. The philosophies of Epicurus, the Stoics, and the Academicians became accessible to him through Varro and Cicero. His evaluation of Aristotle was influenced by his insufficient knowledge of this author, and the authority of his judgment bore such weight that the following centuries to the very height of the Middle Ages shunned the acquaintance with a writer whom classical scholasticism designated as "the" philosopher. St. Augustine was more intimately familiar with Roman antiquity, with the works of Horace, Ovid, Terence, with the works of the great Roman historians and nature philosophers. Grabmann mentioned three forms in which Augustinian ideas were reflected in the Middle Ages' evaluation of classical antiquity: (1) The writings of St. Augustine have provided one of the main sources of what the Middle Ages knew about Greek and Roman thought. (2) St. Augustine was influential in determining the attitude of the Middle Ages in regard to secular learning and culture. (3) He proved a decisive influence in the mediaeval evalution of individual classical authors, particularly of Plato and Aristotle. Through his christianization of the Platonic doctrine of Ideas St. Augustine furnished the foundations of the philosophical speculation of St. Anselm of Canterbury and the early scholastics. The doctrine of Ideas as developed by classical Thomism is the synthetic product of Aristotle's criticism of Plato and St. Augustine's christianization of Platonism. St. Augustine's mild and moderate attitude in regard to pagan classical literature and its adaptation is expressed in the following sentence: *Ab ethnicis si quid recte dictum, in nostrum usum est convertendum.*[3] St. Thomas Aquinas corroborates this statement when

[3] *De doctrina Christiana,* l. 2, 40.

he writes: *Augustinus qui doctrinis Platonicorum imbutus fuerat, si quae invenit fidei accommoda in eorum dictis, assumpsit; quae vero invenit fidei nostra adversa in melius commutavit.*[4] Both statements may be summarized by saying that the secular sciences as they have been handed down from antiquity should become subjects of learning in so far as they possess value and significance regarding the life of Christians and the study of the Scriptures. These educational ideals were realized and practised in the monastic schools of the early Middle Ages, particularly in those Irish and Anglo-Saxon schools which became the cradle of the Carlovingian Renaissance. Grabmann agrees with Reitzenstein that in this Augustinian attitude in regard to secular leaning antiquity and Christianity appear reconciled. Alcuin, e. g., calls the liberal arts the seven columns of wisdom and the pathways that lead to the perfection of knowledge. His pupil Hrabanus Maurus presents in the third book of his *De institutione clericorum* a revised version of St. Augustine's *Doctrina Christiana.* It was not until the beginning of the reform movement of Cluniac that a wave of extreme asceticism temporarily quelled this Christian Humanism of the early Middle Ages. Even then, Hugh of St. Victor, whom Grabmann calls one of the most prominent and influential theologians of the twelfth century, writes the following: *Nullam scientiam vilem teneas, quia omnis scientia bona est. . . . Omnia disce, videbis postea nihil esse superfluum.*

The new humanistic tendency which centers round the school of Chartres is hardly subdued during the great centuries of Scholasticism. To speak with Gilson of the humanism of St. Thomas Aquinas appears justified in view of the fact that St. Thomas, in following his teacher St. Albert the Great, has proclaimed the independence and autonomy of philosophical speculations within its own particular sphere.

In a separate article Grabman discusses St. Augustine's *Quaestio De Ideis* (pp. 25-34). He refers to question 46 of Augustine's *De diversis quaestionibus 83 liber unus.* In this work St. Augustine considers the Platonic doctrine of Ideas as something so great and sublime that he makes the acquaintance with it a prerequisite of true wisdom: *Tanta in eis (sc. ideis) vis constituitur, ut nisi his intellectis sapiens nemo esse possit.* There is, however, a decisive difference between the Augustinian and the Platonic doctrine of Ideas. With Plato the ideas are metaphysical entities which subsist outside the divine mind.

[4] *Summa Theologica*, I, Q, 84, art. 5.

With St. Augustine the ideas are divine thought and the archetypes of all created forms. The divine intellect is no longer, as with Plotinus, an emanation of the divine essence; it is rather identical with it. In this way St. Augustine relates the Ideas of Plato to the Christian concept of creation. The knowledge of the historical fate of Platonism and Augustinianism will be further enriched by the critical edition of the works of the great German Cardinal Nicholas of Cusa which is being prepared by the Heidelberg Academy.

The consequential problem of St. Augustine's views on the relationship of faith and knowledge and the influence of these Augustinian views on mediaeval thought forms the subject of another treatise (pp. 35-62). Grabmann is right when he says that the definition of the relationship of faith and reason belongs to the most controversial subjects in the theological and philosophical interpretation of St. Augustine. The controversy concerning *auctoritas* and *ratio* forms one of the major themes of patristic and scholastic philosophy. The hostility with which certain ultra-conservative theologians and some of the mystics attack philosophy finds its counterpart and antithesis in the exaggerated rationalism of Scotus Eriugena, Berengar of Tours, Peter Abaelard, and the Latin Averroists of the thirteenth century. A synthesis was achieved by the classical scholastic thinkers such as St. Anselm, St. Bonaventure, and St. Thomas. Grabmann, in essential agreement with Gilson and most of the contributors to "A Monument to St. Augustine",[5] claims that with both St. Augustine and St. Thomas knowledge precedes faith. "We should not be able to believe if we were not in the possession of rational souls", says St. Augustine.[6] He even asserts that the very act of faith implies rational and intellectual activity: *Ipsum credere nihil est quam cum assensione cogitare.*[7] Grabmann himself stresses the fact that St. Augustine compares unfavorably with St. Thomas as regards systematic and conceptual clarity. It is evidenced by the history of certain Protestant denominations how easily Augustinian doctrines may be misconstrued. It therefore seems a thankless task to attempt St. Augustine's vindication as a philosopher. In spite of the allowance he makes in favor of reason preceding faith (*Intellige ut credas, crede ut intelligas*), more significant and characteristic in his *fides quaerens intellectum* with its pronounced emphasis on

[5] London, 1930 (cf. especially the articles by M. C. D'Arcy, S. J., E. Gilson, Jacques Maritain).

[6] *Epistola 120 (ad Consentium)*, n. 3.

[7] *De praedestinatione sanctorum*, c. 2, n. 5.

faith and authority. It is a considerable way from here to St. Thomas's *locus ab auctoritate infirmissimus*, even if we take into consideration that St. Thomas here, of course, speaks of human authority. Grabmann himself identifies the philosophy of the great African with the concepts of speculative theology whose task consist in the rational explanation of the contents of faith and revelation. Can this definition be said to be in harmony with the Thomistic conception of philosophy? Once again the Christian Aristotelianism of St. Albert and St. Thomas signifies an imposing synthesis of Aristotle and St. Augustine, attributing true transcendence to faith and due autonomy to reason.

Grabmann's essay on *Aristoteles im Werturteil des Mittelalters* (pp. 63-102) is an important contribution to the history of the formative stages of the Christian-Aristotelian systems of classical scholasticism (*Hochscholastik*). Although the main phases of this gradual process of the adaptation and resumption of Aristotle are now generally known, many partial aspects receive further specification. The article on *Kaiser Friedrich II. und sein Verhaeltnis zur aristotelischen und arabischen Philosophie* (pp. 103-137) issues in a partial vindication of the great humanist among the Hohenstaufen rulers who has been accused of anti-Christian opinions and heretical tendencies. Grabmann shows how these accusations resulted in part from Frederick's interest in Aristotle and his Arabic translators and commentators, Frederick's Court in Palermo and the Imperial University in Naples fostered and encouraged greatly the steadily growing preoccupation with Aristotle and acted as mediators for the influx of Averroistic philosophy. Some of the disciples of Averroes in the early fourteenth century (Taddeo da Parma, Angelo d'Arezzo) are discussed by Grabmann in special chapters, valuable contributions to the history of Scholastic Averroism.

By far the most ingenious of Grabmann's treatises are the ones dealing with St. Albert the Great, his relationship to Latin Averroism (pp. 287-312), the Stuttgart manuscript of an unedited commentary to the Nichomachean Ethics (pp. 313-323) and, most significant of all, the essay on St. Albert's influence on the spirit of mediaeval philosophy and culture, and on the German contributions to mediaeval Scholasticism and mysticism (pp. 324-412). There is little doubt that the canonization of the Universal Doctor and his promulgation as *Doctor Ecclesiae* has already proved a great stimulus in promoting scholarly research and will eventually lead to an adequate appreciation of St. Albert's pre-eminence as one of the greatest pioneers and innovators in philosophy, endowed with a synthetic mind and a model personification of the active

and contemplative life. Neo-Scholasticism in particular will find a more thorough preoccupation with the vast treasury of St. Albert's edited and unedited writings exceedingly helpful and profitable. Among his unpublished works *De bono sive de virtutibus* represents a complete system of ethics, conceived and completed independently twenty years before the *Secunda* of St. Thomas was written. Grabmann treats of St. Albert's achievements under the separate headings of his several titles of honor: Albertus Coloniensis, Teutonicus, Magnus, Doctor universalis, thus illustrating the various traits and aspects of his great personality. These achievements are well summarised in his confrater Bernard Guidoni's unedited tract *De viris illustribus ordinis praedicatorum: Dominus frater Albertus Theutonicus episcopus Ratisponensis, maximus in phisicis et divinis. Hic multa et diversa volumina dereliquit toto orbi, que ad expositionem sacrae scripturae et aliarum scientiarum scripsit, intellectu profunda, sensibus et sententiis alta. Quorum numerum et nomina hic ponere esset longum. Circa finem vero dierum suorum librum de sacramento altaris edidit, in quo evidenter ostendit et sinceritatem fidei sue in Deum et fervorem devotionis ad divine incarnationis sacratissimum mysterium et, qua excellebat, scientiam divinarum scripturarum. Episcopatum Ratisponensem coactus recepit, sed paulo post tamquam carbonem ardentem manum adurentem obtenta cessione abiecit et ad paupertatem ordinis rediit. Obiit anno Domini MCCLXXX.*

Grabmann devotes a special chapter to St. Albert's influence on Dominican mysticism in Germany. He enters upon a discussion of the much disputed subject of Master Eckhart's metaphysics of being as documented in his German and Latin writings. Grabmann follows Denifle's judgment in demonstrating the neo-Platonic and Averroistic elements in Eckhart's metaphysics. He has a special treatise on Jacob of Viterbo's doctrine on the reality of the Divine Being (pp. 490-511), in which he bases his discussion on one of the 31 Quaestiones of this Augustinian theologian who died as Archbishop of Naples in 1308. The question *Utrum Deus dicatur vere ens?* serves to illustrate the distinction between Thomistic metaphysics and the neo-Platonic metaphysics of Proclus, Master Eckhart and the Averroists, metaphysical doctrine which were wholly or partially condemned by Bishop Stephen Tempier in 1277. Master Eckhart undoubtedly would have subscribed at least to the following of the statements that incurred censure: *Quod Deum esse ens per se positive non est intelligibile; sed privative est*

ens per se. As can readily be seen, it is relatively easy to overstress the "negative theology" of the Areopagite to such a degree as to deprive God of His entity. According to Master Eckhart *ens formaliter* is only found in creatures: *Deo non convenit esse nec ens, sed est aliquid altius esse.* This statement amounts to the assertion that thought is superior and prior to being, wherefore those German idealists appear justified who claim Master Eckhart as one of their own. Eckhart's disciples, John Tauler and Henry Suso try to interpret the objectionable theses of their beloved Master in an orthodox way, Tauler being more susceptible to neo-Platonic influences than Suso, for whom St. Thomas is the *Doctor egregius, rosa sine spina, sol sine nube,* also *das klar licht, der lieb sant Thomas.* Tauler, in his discussion of the central mystical doctrine of the *scintilla animae* (*Seelengrund, das Fuenklein*), mentions St. Albert the Great, Dietrich of Freiberg, and Master Eckhart as his authorities: *Der eine heisset es ein funke der selen, der andere einen boden oder tolden, einer eine erstekeit, und bischof Albrecht nennet es ein bilde in dem die heilige derivalitikeit gebildet ist, und do inne gelegen ist.*

Mediaeval German mysticism is particularly indebted to St. Albert's treatise *De eucharistiae sacramento.* But St. Albert's importance by far transcends the confines of German mysticism and Scholasticism. His influences reaches far into the philosophical and theological speculation of the Renaissance. Cardinal Nicholas of Cusa was a great admirer of St. Albert. One of the Cardinal's closest friends was Dionysius (Ryckel) Carthusianus, one of the chief representatives of later mediaeval speculative and mystical theology, who frequently refers to St. Albert's writings. John Eck, that imposing figure of the period of the Reformation, mentions St. Albert in his *Chryssopessus praedestinationis* (1514). He speaks of him as *Suevorum et Germanorum decus . . . Germanorum philosophus.* Grabmann's final chapter deals with St. Albert's influence on non-Germanic philosophers, theologians, and poets of the Middle Ages, paying special attention to Dante, Savonarola, and Cardinal Juan Torquemata of Spain. In concluding this review of Grabmann's scholarly work, it might be well to call the attention of our readers to the monumental, critically revised edition of St. Albert's complete *oeuvres* which is being prepared by the Albertus Magnus Academy in Cologne and which will represent a great improvement over the uncritical older editions, the one by Jammy of 1651, which was re-edited in 38 volumes by Borgnet in 1890 sqq.

It is a practical impossibility to give an even approximate account of the theological, philosophical, and historical information and inspiration that may be derived from Grabmann's *Mittelalterliches Geistesleben*. It has been this writer's endeavor to elucidate some of the most pertinent problems that are being tackled by this great representative of Neo-Scholastic philosophy and theology.

KURT F. REINHARDT.

Stanford University.

BOOK REVIEWS

Order and Life. By JOSEPH NEEDHAM. New Haven: Yale University Press, 1936. Pp. x + 175.

Joseph Needham of the University of Cambridge (whose sacerdotal namesake in the 18th century defended spontaneous generation in his controversy with Abbé Spallanzani) is probably the stoutest defender of mechanism in theoretical biology today. As the author of *A History of Embryology* (1934) and a three-volume treatise on *Chemical Embryology* (1931), both being works of eminent scientific respectability, Needham has displayed an appreciation of the wider ramifications and speculative repercussions of his subject that is all too seldom disclosed by experts and specialists. The present volume is published by Yale University on the Terry Foundation and is a worthy contribution to that series of lectures.

Those Neo-Scholastics whose scientific premises and data are derived chiefly from the writings of the late Sir Bertram Windle would do well to consider the arguments advanced by Needham or they will be tilting against windmills because many of the objections to the older mechanism are candidly conceded by the neo-mechanists. Moreover the constant advance of research frequently diminishes the cogency of arguments against certain mechanistic tenets.

Nevertheless, Needham almost protests too much in repudiating the materialistic metaphysic that used to be the invariable concomitant of mechanistic biology. In the light of these confessed denials, one is more than wearied and chagrined by the obsolete and gratuitous allusions to theology as "the home of lost causes" (p. 5) and to "the arid regions of semi-theological speculation" (p. 41). The usual terms of abuse are applied to vitalism, viz., "dogmatic", "obscurantist", "occult", "mystical and animistic". It would seem that all who cannot accept mechanism are defeatists. There is nothing futile about the "entelechy" if it helps to complete our thinking.

Since he wrote *The Sceptical Biologist* in 1928, our author confesses (p. 17) that he has changed his mind. At that time he "regarded the nature of biological organisation as a purely philosophical question, and excluded it from scientific biology." His conversion, incidentally, was welcomed by the organismic biologist Ludwig von Bertalanffy in the latter's *Theoretische Biologie* (p. vi) wherein pleasure is expressed

that a former opponent has come to see that theory may be quite as profitable in biology as it has proved to be in physics and that organisation itself requires explanation.

However, Needham will have no traffic with the vitalists even if he makes concessions to the new organicism and to holism. J. S. Haldane's rejection of mechanistic views in biology is attributed (p. 43) to a dual personality. One may presume it is Dr. Jekyll who is content with metrical description and causal explanation while Mr. Hyde is the idealist philosopher who appeals to the "alogical core of the universe" and to what Needham elsewhere (p. 3) terms "the argument from inexplicability."

The thesis of these lectures is that "the fields of morphology and biochemistry are not so sundered as is often supposed" (p. 164) and that there is a "oneness of inorganic and organic science", and although one is impressed by the range of evidence marshalled in defence of that position it seems to the present writer that alternative theories can interpret the same facts quite as well as can mechanism. Indeed one suspects a begging of the question in the author's preferred *status quaestionis* as being that of a "crack or 'fault' between morphology and biophysics or biochemistry" instead of the traditional delineation of the problem as a "cleavage between the inorganic and the biological sciences." Does not such a formulation postulate rather than explain life itself? To reply that living protoplasm is merely another kind of matter, just as gold is other than silver, is to ignore the fundamental fact that protoplasm differs vastly more from either or both of those metals than they do from each other. And if the complexity of protoplasm is "not that of a machine nor of a crystal but of a nebula" does not this hyper-organisation which is never found on the same scale in the inorganic realm, demand a special kind of explanation?

It does not follow that "properties of a complex which are not the result of the summation of properties of the components" are therefore "fundamentally inexplicable and unintelligible" (p. 165). Nor need one assume a "supra-material" factor unless by that epithet one merely means a principle which is not physico-chemical. Unless one persists in equating the physical sciences with SCIENCE, there is no reason whatever to dismiss vitalistic views as unscientific. Scholastics contend that a complete explanation of even the mineral kingdom requires that physico-chemical description be supplemented by metaphysical explanation and it may well be that as one goes up the grades of being or levels in nature, the key-concepts become more and more

metaphysical and culminate (so far as nature is concerned) in the spiritual factor which is the quintessential element in human nature. Unfortunately, very few exponents of the philosophy of science today are aware unless dimly of Scholastic doctrine. An acquaintance with the Scholastic conception of an essential or substantial union of two incomplete substances would dissolve much of the difficulty encountered by current mechanists who seem to regard the entelechy after the Platonic or Cartesian "rider-in-the-chariot" analogy. Again, no Scholastic ever regarded teleology as the sole mode of biologic interpretation or "causal determinism" as the exclusive key to physico-chemical answers. Nor do claims for the "irreducibility of biologic categories or the autonomy of biology" necessarily entail the claim that the organism stands in isolated independence of the inorganic sphere. On the contrary, not only is there but one kind of prime-matter on the traditional four levels of natural existence but the substantial form at each level contains the inferior forms virtually and in this sense may man be legitimately regarded as a microcosm or miniature universe—the illegitimate analogy being that still perpetuated in almanacs wherein an astrologico-alchemical correlation is arbitrarily established between parts of the human anatomy, planets and metals.

Needham pays his dubious respects to the "alleged thanatological limitation of biological theory" which this reviewer recalls as being well expressed in the statement of Winninger that "chemistry can get at only the faeces of life". He admits more than once that biological order is different from inorganic order but insists that it is not therefore impenetrable or incomprehensible but is unaware that Scholastic vitalists would quite agree even if they did not mean quite the same thing. They would not agree that the main problem of biology is that of "bridging the gulf between the so-called sciences of matter and the so-called sciences of form" (p. 138). They would find the chemical description of the hypothetical "organiser" quite as mysterious as anything in Driesch. But they would admire Needham's account of "hierarchical order or levels of organisation" within the living organism, his account of the significance of the work of Hardy and many others and his application of the new "field-concept" and "gradient concept" to biologic problems.

DANIEL C. O'GRADY.

University of Notre Dame.

Glaubensgnade und Glaubenslicht nach Thomas von Aquin. By P. Anselm Stolz. Rome: Studia Anselmiana Philosophica Theologica edita a professoribus Instituti Pontificii S. Anselmi de Urbe. Fasciculus I. Libreria Herder, 1933. Pp. 118.

This book deals with the controversy rising from the denial, by Pierre Rousselot, S. J., of the possibility of arriving at a rational belief in the supernatural character of the Catholic Faith without the aid of divine grace. According to Rousselot the testimony of miracles is valueless to a mind not illumined by grace, for to such a mind a miracle could not be recognized as such. Without the grace of faith there can be no recognition that certain phenomena point conclusively to a supernatural order. Rousselot invokes in support of his contention the Thomistic principle of the specification of an act by its object. God is a supernatural object; therefore any activity on the part of man directed toward God must be supernatural, the result of grace.

The more orthodox Thomists, led by P. Garrigou-Lagrange, O. P., while accepting Rousselot's use of St. Thomas' principle, would limit its application so as to allow for the possibility of a purely natural assent to the supernatural character of the Faith on the evidence of miracles, St. Thomas' *evidentia signorum*, although they would admit that such assent is made only with *moral* certainty. They are as insistent as Rousselot that *real* faith is a supernatural gift. The controversy deals only with the *approach* to faith.

The purpose of the present volume is to determine St. Thomas' position with regard to the problem in question, and to ascertain how he established this position rationally. Such an investigation is not as easy as one might think, for among the classic texts marshalled by the controversialists there appears to be a conflict, at least as these texts are expounded by those who invoke them.

Our author, by searching here and there in St. Thomas' writings, finds material which enables him both to iron out the conflicts and to show how the Thomistic teaching on the present point of controversy fits into the system as a whole. The chief difficulty in the present conflict, he says, comes from a misuse of one Thomistic doctrine (*actus specificantur ab objecto*) together with the failure to apply another (*inchoatio finis in omnibus quae agunt propter finem*).

Both Rousselot and Garrigou-Lagrange have used the principle of the specification of an act by its object to prove that because God is a

supernatural object, He can be known only by a supernatural act. This argument is a tautology, rising from a failure to grasp the fact that *supernatural* means, according to St. Thomas, something which is beyond man's natural powers to attain. Thus when we say that an object is supernatural, we are merely saying that it is beyond man's powers to attain, we are not saying *why* it is beyond man's powers. Moreover, an object could quite well be beyond the reach of one of man's capacities and within the reach of another, i. e., God might be beyond the reach of man's intuitive knowledge, but accessible to man by an indirect knowledge. Thus the doctrine of the specification of an act by its object cannot be used to deny the possibility of some purely natural knowledge of God. Indeed, St. Thomas himself recognizes a purely natural belief in God on the part of demons.

Rousselot's argument then falls to the ground, but Garrigou-Lagrange, who has used the same argument to prove his proposition that divine grace is necessary for real faith with its consequent knowledge of God, is left with a mere unproved assertion. Our author attempts to show how, by the use of the principle of the *inchoatio finis*, this proposition can be rationally established in the Thomistic system, and how at the same time a purely natural belief can be provided for. The principle is this: When a subject strives for a goal, there must be present in that subject some "foretaste" of the goal, some *inchoatio finis*. In man there are two goals, the natural and the supernatural. The natural goal is the indirect knowledge of God which is gained from created things. For this man has as the *inchoatio finis* his rationality and his natural inclination to the good. The other goal is the direct knowledge of God. Since this can be proved inductively to be impossible for man's natural faculties, man could not even strive for this goal if left to himself, for there is in him by nature no foretaste of this goal. If then he is to strive for it the *inchoatio finis* must be given him by God. And in this case the divine gift is the *habitus fidei*, by which there is imparted to him the principles of an entirely new sphere of knowledge. Thus the necessity of grace for a direct knowledge of God is rationally established, and at the same time provision is made for a purely natural, though indirect, knowledge of God. Rousselot is refuted and Garrigou-Lagrange is given proof for his hitherto unsupported assertion.

The author is to be complimented on his clear statement of his case. Of particular value is his exposure of the tautology involved in proving the impossibility of a direct knowledge of God from the fact that He

is supernatural. It is to be hoped that this "proof" will not appear in print again. On the other hand, one could wish that the author would either change the title of his book, or else be a little more explicit as to the distinction between *Glaubensgnade* and *Glaubenslicht.*

WILLIS D. NUTTING.

College of St. Teresa,
Winona, Minn.

Die Erschliessung des Seins. Eine Einfuehrung in Erkenntnistheorie und Logik. By JOSEPH ENGERT. Bonn: Peter Hanstein Verlagsbuchhandlung, 1935. Pp. 115.

Philosophic thought in Germany is at present passing through a most interesting, if somewhat chaotic, phase of development. It may be a new philosophy or it may be only a method that has been in the making for over fifty years among thinkers who have definitely seen that Kantian and Hegelian rationalism is no more helpful than scientific materialism in meeting the insistent demands of reason for an adequate understanding of a real universe.

This movement is known as Existential philosophy, with a distinctly psychological approach. It represents a retreat from a logicism and a colorless intellectualism which were marvels of consistency, but which unfortunately were useless for any purpose of life. Experience is shot through with purpose and order, it is at bottom rational, but its richness cannot be encompassed fully by any system of abstractions. Existential philosophy means to recapture reality through active, living contact with it. Kierkegaard, to some extent Nietzsche, more fully Dilthey, Bergson, Scheler, Heidegger et al. are its enthusiastic exponents. It is not yet fully satisfying. Heidegger, for instance, reduces all being to *human* being. Man becomes the central reality for him. Recognizing him as being essentially 'thrown' (contingent), he abandons him with all his Kierkegaard 'fear', and with no access to a reality transcending the purely phenomenal. It is a philosophy of the earth earthly, in which God is not even mentioned. One might call it humanistic ontology, in the sense in which pragmatism was humanistic epistemology.

Dr. Engert in this fine study follows the psychological approach of Heidegger, but fully alive to its relativistic limitations, which preclude all possibility of reaching ultimate reality, he corrects and supplements it with considerations of Aristotelian origin. From contingency he

goes to necessity, from the relative to the absolute. Essence and existence (*Dasein and Sosein*) do not coincide in the contingent, but unless they do coincide in an absolute reality it must forever remain an impossibility. Following the psychological approach, he first points out that in religious experience—especially in Christian religious experience with its orthodox mysticism—God is manifested, the absolutely transcendent is given in experience. One needs only to free it from its psychological implications. In the same way the soul and the world of objects are established. It is the method of unhesitating assertion of reality as given in experience. It is the business of metaphysics to inquire into the nature of reality. Epistemology is conscious of its limitations and goes no farther.

Taking it as a corrective study of the various expositions of Existential philosophy, this little work is highly satisfying. Painstaking analysis and sympathetic insight characterize it throughout. But one gains the very definite conviction that the Aristotelian principles alone can ever serve to break through the world of phenomena (be they physical or psychological), to the ultimate reality which we call First Cause, God. Perhaps this was the objective of Dr. Engert's study.

A. W. Centner.

Pontifical College Josephinum,
Worthington, Ohio.

Primitivism and Related Ideas in Antiquity. By Arthur O. Lovejoy and George Boas, with Supplementary Essays by W. F. Albright and P.-E. Dumont. (A Documentary History of Primitivism and Related Ideas. Volume One.) Baltimore: Johns Hopkins Press, 1935. Pp. xv + 482.

"As the generations pass, does the condition of mankind grow better, or grow worse, or remain, except in external and relatively unimportant ways, the same; has the advance of civilization been a gain or a loss for the species responsible for it; is it a manifestation of man's superiority among the creatures, a legitimate ground for racial pride, or is it an evidence of his folly or depravity; are those peoples the most fortunate among whom it never began, or was speedily halted? It is the record of the opinions which men, chiefly in the Occident, have held upon such questions, at least down to a century and a half ago, that these volumes are—if the project can be carried out—designed to present: the record, especially, of civilized man's mis-

givings about his performances, about his prospects—and about himself."

The history of primitivism is presented so far as possible by citations of the original texts of the writers who have expressed the idea in one form or another. Of all original texts a translation is given. Explanatory matter has also been added. In the present volume the material is drawn chiefly from classical Greek and Roman sources, with special chapters devoted to Plato, Aristotle, Lucretius and Cicero, and with supplementary essays by Albright and Dumont on primitivism in ancient western Asia and in Indian literature respectfully.

Chapter I is devoted to definitions, descriptions and divisions of the two major types of primitivism: chronological and cultural. Chronological primitivism is described as a "kind of philosophy of history, a theory, or a customary assumption, as to the time—past or present or future—at which the most excellent condition of human life, or the best state of the world in general must be supposed to occur." Cultural primitivism, "the discontent of the civilized with civilization", is "the belief of men living in a relatively highly evolved and complex cultural condition that a life far simpler and less sophisticated in some or in all respects is a more desirable life."

It has sometimes been assumed that primitivism was essentially a novelty in the seventeenth and eighteenth centuries, or a peculiar point of view introduced chiefly by Rousseau. The abundant texts cited in the present work show clearly that most of the aspects of primitivistic thought of the seventeenth and eighteenth centuries had their counterparts in classical antiquity. The reviewer might be permitted to add that most of the ideas clustering under or around primitivism are found in the folklore and mythology of uncivilized peoples still living today, —a subject on which volumes of source material could be assembled.

The present work is a model of scholarly compilation and presentation. Not only the philosopher but the historian, the classicist, the psychologist and the student of culture history will find it a rich mine to dig in and an invaluable instrument for research in his own studies. We may merely express the hope that this monumental project so auspiciously inaugurated with be carried through to completion. Later volumes in the projected series, volumes announced as in preparation, will deal with primitivism in mediaeval times, in the Renaissance and in the seventeenth and eighteenth centuries.

JOHN M. COOPER.

The Catholic University of America.

Political Ethics: An Application of Ethical Principles to Political Relations. By DANIEL SOMMER ROBINSON. New York: Thomas Y. Crowell Co., 1935. Pp. 288.

This is the age of Realpolitik. Ever since the time of Machiavelli, there has been a growing tendency to divorce politics from all considerations of ethics and morality, to view it as a world apart from which all other values must be excluded. Anyone who tried to introduce ethical principles into this field was looked upon as a meddlesome intruder, a fair mark for his more ruthless competitor, a dreamer who was not fitted for the practical business of managing the affairs of state. For the benefit of such, there was erected over the political domain a sign reading "No Trespassing", and woe betide him who entered the lists with such a handicap. Issues were to be settled by recourse to arms or by more questionable means; obligations were binding as long as they worked to one's advantage; trickery, masked under the more euphonious term "diplomacy", was the recognized procedure; rights were synonymous with interests. The evil hand of pragmatism was in supreme control of political councils. Even such an obvious ideal as the League was diverted from its high purpose and made to serve selfish ends, as any recent observer can affirm. Ordinarily, however, it was not deemed necessary to use the mask of idealism, and spoils were freely divided without concern for anything but self-interest. Bismarck was undoubtedly the best exponent of this point of view, but his understudies were legion, and were in complete control of the political destinies of men. Is there any wonder then why the pre-war period has been justly labelled "International Anarchy"? Why today we are on the brink of disaster with social discontent, nationalism, and war all rearing their ugly heads? Why the pessimistic freely predict the extinction of civilization, and even the most optimistic admit that grave dangers impend? Like every other "pragmatic" experiment, the basic weakness of Realpolitik is that it does not work and it must accept the political evils of the day as its rightful progeny.

In view of this, it is encouraging the find *Political Ethics* still studied in a world so blatantly utilitarian. Although it is a discouraging task to try to apply ethical standards to the chaotic field of modern politics, it is a healthy sign that the attempt is made in the book under review. Professor Robinson is to be congratulated for his effort and for the rather large measure of success he has achieved. He does not claim to have made an exhaustive treatment of so broad a subject, but

tries merely to assemble the material essential to an intelligent appreciation and discussion of the ethical issues involved in Post-War politics. Within the limits set down, this volume is essentially sound. At a time when ethical relativism is so rampant, Professor Robinson holds that objective standards are necessary for a rational conduct of political affairs and contends that ethical principles must be applied to groups as well as to individuals. Realizing the impossibility of a Utopia, yet stressing the need of ideals, he sets down the postulates of an ideal state that will be capable of realization and the mechanism by which they may be attained. These are necessarily vague and admittedly difficult to apply, but the effort to formulate such postulates is commendatory. In discussing this point, he argues for the primacy of the spiritual, or as he terms it the "cultural", over material competitive interests and admits that modern society has emphasized the latter. He recognizes the family as the basic institution of the private order and proclaims the permanent monogamous family as its highest form and the best expression of human love. He recognizes the importance of organized religion in the structure of the state and deplores the secular spirit which would substitute an urbane humanism and a benevolent philanthrophy for religion. He then applies these principles to actually existing states such as Soviet Russia, and Fascist Germany and Italy, and condemns all three as ethically unsound. Strangely enough, his condemnation of present day Russia is not so striking or complete as his postulates would demand, and he harbors the rather unsubstantial hope that somehow Bolshevism will slough off those features which make it unacceptable at present. By the tests which he has established, he defends representative democracy as the most desirable type of state from an ethical point of view. While not blind to its faults, especially to "its absurd notion that religion should be isolated from the other aspects of the cultural order" and its "overemphasis on science and art as compared to religion", Professor Robinson does hail it as the salvation of mankind in the political order. In making his case, he sometimes confuses representative democracy with the traditional culture of Western Europe, and ascribes virtues to it which it really has inherited from the general cultural stream of Western history. In his treatment of international relations, he sets down the rights and duties of civilized states, their obligations towards backward communities and ends with a plea for a new League of Nations, made up of all the peoples living under representative democracies, and guided by proper ethical standards.

Whatever our attitude toward certain features of his book, we recommend *Political Ethics* as a stimulating and valuable contribution. It is written in a simple, lucid style, and is not complicated by a difficult terminology, a point which our Catholic authors in this field might well imitate. Its value to the student is enhanced by an appendix containing case problems for discussion and by a bibliography at the close of each chapter. While his bibliographies are popular rather than scientific, and contain contemporary material rather than sources, they are adequate for the general reader. There is a noticeable paucity of references to Catholic works in this field, which is to be regretted for we feel sure that a more general acquaintance with the Catholic position would have been a real help to the author. Were he acquainted with the writings of Christopher Dawson, he would have realized that, in addition to the cultural monism and pluralism which he describes, there is the possibility of cultural interrelation, where the cultures are distinct, yet influence each other in a variety of ways.

We gather from the volume that Professor Robinson is an eclectic in philosophy. Sometimes his borrowings are unfortunate. He accepts the naïve, Hegelian and unhistorical account of A. N. Whitehead of the development of the ethical idea of freedom, which does not do justice to the influence of Christianity in this regard. Some of his statements are unacceptable, for example, his opinion that primitive peoples have no ethical ideas. Again, his terminology is occasionally unsatisfactory, as instanced by his definition of morality. Yet on the whole, we recommend *Political Ethics* as a noteworthy attempt to apply ethical standards in a field from which they have so long been absent.

JOSEPH T. CLUNE.

The Catholic University of America.

Gott, der erste Beweger aller Dinge: Ein neuer Beitrag zum Verstaendnis der Konkurslehre des hl. Thomas von Aquin. Von JOHAN STUFLER. (*Philosophie und Grenzwissenschaften: Schriftenreihe, herausgegeben vom Innsbrucker Institut fuer scholastische Philosophie,* VI. Band-3./4. Heft) Druck und Verlag von Felizian Rauch, Innsbruck, 1936. Pp. 183.

This is an important book and could be reviewed adequately only by a complete reprint, first, because all its pages are crowded with relevant considerations and, secondly, because the author defends a

thesis which radically disagrees with what Scholastics have long regarded as an essential point of their philosophy. In 1923 Stufler published a study entitled, *D. Thomae Aqu. doctrina de Deo operante in omni operatione naturae creatae*, where he held that neither the Thomistic theory of the *praemotio physica* nor the Molinist doctrine of the *concursus simultaneus* has any support in the writings of the Angelic Doctor. As was to be expected, Stufler's work attracted much attention and criticism. In the present volume Stufler re-examines the whole question in the light of the objections raised against his thesis, omitting however the theological side of the matter. The author certainly substantiates his claims with an abundant wealth of pertiment quotations and devotes much space to the discussion of the criticism brought against him since the appearance of his first study. The result is a very thorough discussion of our problem from both the historical and systematic point of view.

In fine, the object of Stufler's work is an analysis of the meaning which St. Thomas Aquinas gave to the axiom: *quidquid movetur ab alio movetur.* Following Aristotle, St. Thomas distinguishes first between *motus naturalis* and *motus violentus.* The latter is clearly caused by external forces. The *motus naturalis* St. Thomas discusses in his commentary on the eighth book of Aristotle's Physics (lect. 8). He distinguishes between *potentia prima, potentia secunda* (*actus primus*), and *actus secundus.* Now St. Thomas says: *Ex prima autem potentia in secundam reducitur aliquid cum activum cum passivo suo coniungitur, et tunc passivum per praesentiam activi fit in tali actu qui adhuc est in potentia. . . . Et sic existens in prima potentia fit in alia potentia. . . . Ergo de prima potentia reducitur in actum, cui coniungitur secunda potentia, per aliquod agens. . . . Sed quando sic se habet . . . non oportet quod reducatur in secundum actum per aliquid agens, sed statim per seipsum operatur . . . nisi sit aliquid prohibens.*

How then does the axiom that whatever moves is moved by another, apply to natural motion? There are four ways, in all of which God is the principal agent in the actions of secondary causes. First, by creating or generating an agent, or conferring upon it a definite form (e. g., knowledge of mathematics); secondly, by producing the external circumstances in which the previously constituted agent can express itself; thirdly, by applying the active forces of an agent to definite actions (e. g., instruments, lower creatures in the service of higher creatures according to the order of the world) where what is proper

to the instrumental cause is performed by the latter's own virtue; and fourthly, by causing the *esse universale*, the *esse per se*, the *esse ex nihilo*. This latter is basic to all other reality and action; it is prior and most intrinsic to every *esse particulare* and *esse per accidens*. God gives the *esse universale*, secondary causes merely determine and restrict it to *esse particulare*. God provides the *substratum* or *potentia* for the actions of the secondary causes. S. th. 1. q. 65 a. 3; Comp. theol. c. 69; II Sent. d. 1. q. 1 a. 4.)

St. Thomas does not modify his doctrine when he speaks of God's foreknowledge of the free actions of men. God does not know them through *decreta praedeterminantia* but by His eternal co-presence to what is future for us. (I Sent. d. 38 q. 1 a. 5.) The problem of the unreal contingents (futuribilia) was not fully appreciated by St. Thomas he treats them exactly like the contingent free acts which at some time become reality (pp. 176 seq.).

T. A. Rattler.

Mt. St. Joseph College,
Chestnut Hill, Pa.

Discorso Di Metafisica "Hortus Conclusus", Leibnitz. Introduzione e Traduzione Con Testi Inediti Di Michele Giorgiantonio. Collezione Di Studi Filosofici, Serie Storica, Testi, N. 1. Napoli: Casa Editrice Rondinella Alfredo, 1934. Pp. 98.

Besides the translation of a letter of Leibnitz to the Landgrave Ernest of Hesse-Rhein-fels, Giorgiantonio has rendered into Italian the entire text of the Discourse on Metaphysics. In this Discourse Leibnitz looks with some favor upon some theories of the Scholastics, especially in the matter of form. This agreement is only by way of foundation for his theory of monads. He also develops certain points bearing upon his optimism; he appeals especially to the demand of the love of God for entire satisfaction. Against Descartes and others he maintains that God always applies the same conserving force to the world, but does not always thereby confer the same amount of movement. Many problems are touched upon from practical science to divine foreknowledge; and in the moral order some effort is made at expressing motives for piety. This discourse is directed against the Cartesian theology on the point of the constitution of matter; Leibnitz was acting as theologian for the Landgrave of Hesse.

To the problem of substance Leibnitz applies a philosophical calculus, again attempting a refutation of Descartes. He had not as yet fully developed his theory of monads, but is not in agreement with either Descartes or Malebranche on the theory of matter. To him substance is accepted logically as the subject in which the predicates inhere. Two characteristics present themselves in substance: unity and infinity. It involves a perfect or complete notion. To Leibnitz we owe the distinction commonly used in our logics of ideas into obscure and clear, confused and distinct, adequate and inadequate, to which he adds also symbolic and intuitive.

The work is scholarly; but as is not uncommon with certain European savants all effort at either table of contents or index has been entirely abandoned. This interferes very much with the usefulness of the work.

F. A. WALSH.

The Catholic University of America.

Joachimi abbatis liber contra Lombardum (*Scuola di Gioacchino da Fiore*). Edited by CARMELO OTTAVIANO (Reale Accademia d'Italia: Studi e documenti 3). Roma, 1934. Pp. 299 + 6 tables.

Few mediaeval figures have excited as much interest in recent years as the Calabrian Abbot Joachim of Flora (d. 1202). Looked upon as a holy man and prophet in his lifetime, he was quite heterodox in his teachings as his works subsequently showed. His writings, condemned by the Church, exerted a strongly heretical influence upon his numerous followers, the Joachites.

Together with many studies on Joachim and his influence critical editions of his writings are being published. Signor Ottaviano presents here the text of a work against the Lombard which was written by a disciple of Joachim. The text was found but not used by Denifle in ms. 296 of Balliol College (fols. 219-345^{v}). The end of the treatise and the *explicit* are missing due to the loss of three folios from the manuscript. The exact title was presumably given in the *explicit*, since that is the practice in the other treatises appearing in the same manuscript. At the beginning of this text a later hand has added the title: *Joachimus contra Lombardum*. However the work begins with a citation from the Decretals of Gregory IX and could not have been written before 1234, a considerable time after the death of Abbot Joachim. Ottaviano shows that the work teaches the peculiar tritheism of Joachim

and coincides perfectly with the plan of a lost work by that author, *Contra Magistrum Petrum Lombardum*, as outlined in a condemnation by the Lateran Council in 1215. He concludes that it belongs indisputably to the school of Joachim.

Besides a painstaking edition of the text the author gives a detailed study or summary and several schemata of its contents. He provides a complete list of all the works dealing with Joachim and devotes about thirty pages of his preface to a critical bibliography. Four different indexes complete this really sumptuous edition worthy indeed of the Reale Accademia.

A. K. Ziegler.

The Catholic University of America.

Obiter Scripta. By George Santayana. (Edited by Justus Buchler and Benjamin Schwartz.) New York: Charles Scribner's Sons, 1936. Pp. xiv + 319.

Since Santayana is in the way of becoming the object of a cult it is expectedly that one finds pious hands gathering up words that might otherwise lie forgotten on the pages where they first saw light. The introduction to an edition of *Hamlet*, some book reviews, fugitive essays, some toopat little dialogues "Overheard in Seville", a Herbert Spencer lecture on "The Unknowable", articles retrieved from the pages of various philosophical journals, "Ultimate Religion", a paper read at the tercentenary commemoration of Spinoza's birth, make up the present volume. The work is concluded with a valuable bibliography of Santayana's writings.

In the chapters of this book, composed as they were at widely separated times and places, one meets Santayana's familiar references to essences, impulses, disillusioned spirits. There are the expected keen observations, the bright references to those things of the surface that Santayana marks with so shrewd an eye. The famous style is here also. The familiar melodies, the well-practised cadences, the determined musical idiom, all, all are here in abundance. The music goes on and on and sometimes carries one gently off into a world of dreams and sleep. But can one find here any depth or strength of thought?

Of course it is not fair to pass judgment on Santayana on the basis of this work, even on the basis of its more pretentious portions, such as "Ultimate Religion", "Literal and Symbolic Knowledge" or "Some

Meanings of the Word 'Is'". Yet the book by the variety of its contents does provide a basis for one judgment upon Santayana and his work. In the various essays that make up this volume the contrast between Santayana the critic and Santayana the philosopher is especially marked. Marked also in the superiority of the critic over the philosopher. Doubtless a critic must also be a philosopher of sorts, or at least the critic must have certain philosophical principles and presuppositions. But to read Santayana's critical essays in this collection, such as that on *Hamlet*, confirms the present writer in his belief that in George Santayana literature and art would have had a distinguished critic whereas he himself chose rather to be an indifferent philosopher.

JOHN K. RYAN.

The Catholic University of America.

Manual of Patrology and History of Theology. First Volume, First and Second Books. By F. CAYRÉ. Translated by H. Howitt. Tournai: Desclée & Co. Pp. xxxvii + 742.

When the original edition of Father Cayré's important work was published in French some years ago, its appearance caused a veritable sensation in the French-speaking seminary world. "It is the best thing out and it reads like a novel," was to be heard on all sides.

An examination of the volumes in question revealed the fact that their author had tried to inaugurate a new method. He composed his manual with the purpose of satisfying the seminarian. He judged that no theological faculty would ever be able to give the future priest separate courses in patrology, history of dogma, positive theology and the history of asceticism. Accordingly he aimed at uniting in one volume the indispensable essentials of these sciences which according to all the masters are very closely allied. Careful indices enabled the student to find and to group the data concerning the various disciplines.

Moreover even the professionals in the various fields were on the whole agreed that Father Cayré's attempt at a combination was successful. First of all, though the volumes were packed with substance, they were admirably printed and each page gave up its secrets almost without being asked. In addition it was pointed out that the author possessed real talent as a clear and pleasing stylist.

It was the consensus of opinion,—a priori it was impossible to look for anything else,—that Father Cayré did not possess a detailed and

first-hand knowledge of all the problems, controversies, and problems which he treated. It was pointed out that M. Tixeront's manuals while more restricted in scope were the productions of one who had acquired a deeper personal knowledge of the various disciplines. But these same critics did not omit to add that Father Cayré in a very true sense was a master of the vast literature on patristics composed in the various languages of Europe during the last sixty years. He gave evidence of having covered the field with care. He had everywhere chosen what is generally considered the surer doctrine and his bibliographical material was collected from the best specialists. He had also employed the most reputable monographs on the subjects treated.

Necessarily the résumé of many a controversy was vague. The author's desire to be objective prevented his electing one opinion and defending it against the others. If this is a fault, it is due of course to the richness of the presentation. A slight tendency to minimise certain difficulties was also detected. Almost all the critics admitted that the author was thoroughly up to date in his information which includes a great amount of philosophical data.

Father Howitt has translated carefully and capably the first volume of this important manual. His object was evidently to reproduce as exactly as possible the thought of the French text. He has succeeded in doing so and yet he has given us a thoroughly English book. Desclée has printed the English version admirably. The same luminous typography which distinguished the original is here in evidence. This first volume covers the whole of the patristic period up to Augustine and Chrysostom. Its bibliography although nearly ten years old now is still the best in any English book known to this writer. It is to be hoped that the translation of Father Cayré's second volume, which gives the history of Christian literature down to fairly modern times, will soon be achieved by Father Howitt.

E. A. Ryan.

Woodstock College.

Laws of Life. By Halliday Sutherland. New York: Sheed and Ward, 1936. Pp. 270.

Life is still the greatest of mysteries known to physical science, but modern scientific research is constantly adding new knowledge of its laws. It is of extreme importance that this is made available to the general public. But human life is not merely a physical fact; it is

much more a psychical phenomenon, and the possession by man of an intellect and will makes it imperative that one who writes on the rules of human life take cognizance of a higher type of law governing human conduct: the laws of ethics. Ethics, as a science, is forever undergoing development for it is ever being applied to new conditions; but its fundamental principles are forever the same since they are based on the eternal groundwork of right reason. Hence the ambitious author of a monograph on the laws of life must possess two qualifications: he must be abreast of the latest developments of science in so far as they refer to human existence; secondly, he must be fully aware of those ethical standards which have proved their value by long centuries of successful operation. It is because so many of those who attempt to write on this subject lack one of these qualifications that their productions fall so far short of their high purpose.

The author of this present volume possesses both qualifications to an eminent degree. He is a distinguished English physician with an excellent reputation in his profession, and his preoccupation with ethical problems has made him well known on both sides of the Atlantic. Dr. Sutherland has written several treatises on the ethical aspects of medical practice and has carried on an active campaign against such modern aberrations as contraception and euthanasia. The publication of his book "Birth Control: a Statement of Christian Doctrine Against the Neo-Malthusians" in 1922 was the occasion of a famous lawsuit brought by the English advocates of birth control against the author for alleged libelous statements, and the accounts of this trial were widely followed throughout the world. In all his writings, Dr. Sutherland has shown great skill in combining his medical knowledge with those standards of conduct which sound logic and the experience of the race have proved so essential for the well-being of humanity.

In the volume under review, Dr. Sutherland attempts a broad survey of the most important laws, physical and ethical, which have reference to human life, and discusses the chief problems which arise from their application. He discusses the permanent and monogamous character of marriage, pointing out the necessary basis for a successful marriage as well as the causes of divorce and prostitution. Examining the nature of the marriage relation, he spends some time discussing contraception and refutes the various arguments advanced in its behalf. Admitting that economic considerations make the unlimited family impractical in our over-mechanized civilization, he gives a very lucid exposition of the so-called "safe-period" discovered by Ogino. The laws of

heredity are explained in a popular fashion. He shows how the failure of contraceptives as a means of social amelioration has been followed by a demand for sterilization, and discusses the ethical aspects of this practice which has occasioned such controversy recently in Nazi Germany. The effects of a falling birth rate, colonization, war, euthanasia and the use and abuse of alcohol all come under the scope of the author's trenchant pen. The entire volume is written in non-technical language which makes it readily understandable to the average layman, and the arguments are marshalled in a convincing manner that would appeal to any reader. Although the treatment of the various questions is necessarily superficial and the two hundred odd pages are hardly sufficient to give any comprehensive survey of so wide a field, yet the work is extremely valuable as a clear concise statement of the ethics of human life as seen from the vantage point of modern problems and modern scientific knowledge.

JOSEPH T. CLUNE.

The Catholic University of America.

American Philosophy Today and Tomorrow. Edited by HORACE M. KALLEN and SIDNEY HOOK. New York: Lee Furman, Inc., 1935. Pp. x + 518.

The symposium, *American Philosophy Today and Tomorrow,* taking its title from the contribution of the first mentioned of its editors, is the expression of the views of twenty-five present-day influential thinkers, in as many separate chapters. Each of the contributors was invited to "expound his attitude and outlook in terms of his personal development and take occasion to indicate what he regards as the most pressing problem of the future." Obviously the book cannot give a succinct, tangible impression, nor can it give an accurate expression of philosophy in America, for it does no more than offer the diverse opinions of twenty-five men. The total impression is that confusion reigns supreme—there are as many philosophies as there are men who philosophize; but perhaps that *is* the true status of philosophy in America?

An attempt was made to secure in this symposium a cross-section of philosophical opinion. Representative thinkers from every section of the country contributed, college and university professors for the most part, of various races, creeds and schools of thought. Taking these men as spokesmen of American thought one is driven to the

conclusion that in this country, as elsewhere, there is no single strain that can be called typical of America, though pragmatism in its various aspects seems to be the predominant one. We pass for example from "The Humanization of Philosophy" by Moses J. Aronson, who applies a theory of "cultural determinism" and who peers upon the world through the myopic eyes of pragmatism, to "The Gospel of Technocracy" by C. E. Ayres, who confesses to a certain helplessness in the solution of the social problem yet gives expression to an optimism and a great confidence that the technology he professes will give the ultimate solution. Felix S. Cohen begins his "The Socialization of Morality" with an indictment of war and post-war standards; he makes an eloquent appeal for Society as the ultimate in morality. Socialized morality he makes out to be a practical postulate of the continuance of modern civilization. He is drawn aside from the real goal; true philosophy is not utilitarian, simply; true morality cannot be made to serve the ends of any particular type of civilization. Cohen searches, not for an ultimate, but for a practical code.

It is evident that to give even a brief notice of each article in the symposium would pass the limits of a reviewer's task. The above were chosen at random. There are other articles that deal specifically with the 'task' of philosophy, which are of particular interest. "The New Task of Philosophy" as seen by R. T. Flewelling, is to forsake the cold and outmoded scientific or mathematical method and to revive the 'creative imagination' and to remove the sophisticated horror of anthropomorphism. He discovers that scientific disinterestedness is merely a preposterous pose. "Man is the measure of all things" may well summarize Flewelling's philosophy—a throwback! H. M. Kallen's "Philosophy Today and Tomorrow" looks appraisingly at the recent development in thought, and gives a brief but pointed comment on each of the most prevalent systems of today. None are satisfactory. The most hopeful and most humane, he concludes, is the supernaturalistic, the philosophy of Bergson or Whitehead or Eddington, of neo-Catholics (whoever they may be!) or pseudo-humanists. A. R. Murphy, in his contribution, "A Program for Philosophy" finds the business of philosophy to be concern with the standards men accept as ultimate for fact, truth, significance and value, but declares these standards to be relative and variable; their validity is grounded in their representative function. The task of philosophy is to test the representative function and to coordinate with it, reality seen from another angle so that the result will be an integration of experience with 'special in-

sights' so as to bring about an understanding of the world. He formulates for himself certain rules by which philosophical investigation must be guided. Wilmon H. Sheldon's "The Task of Metaphysics" is tersely worded. He finds that task to be independent inductive investigation opening out some new vista, coupled with the study of the solutions proffered by the great minds of the past.

Michael Williams, chosen to represent the Catholic view, though not *ex professo* a philosopher, but undeniably an influential and prominent Catholic, in his "A Catholic's View" sounds the cry that Catholic thought is not simply one among the many, but is one against the many. "All philosophies which accept the view of man as the maker of his gods are those which tend to devitalize and even to poison the intellectual climate, so that under their influence men become spiritually and mentally stupid, and are separated into an inchoate dust of degraded, disunited atoms tossed hither and yon by those purely brutal forces which racial, nationalistic, or class instincts become when torn away from the control of the higher force of brotherhood-in-the-fatherhood-of-God." He sees the battle already raging between the unnatural and the supernatural and the battle will center around the Catholic Church. A call to arms in the field of thought!

The book is a valuable index to present-day philosophic trends in our country. Not among the least of its attractive features are the brief autobiographical items preceding each chapter which give the thought-antecedents of the author, his activity in life, his previous publications, the schools which he attended and in which he taught. Obviously, with each new chapter there is a freshness of style and diction and what is more important a change of the angle of view. Whether one agrees or disagrees with the opinions as expressed by these co-authors of the symposium, after digesting the content, one can form a fairly general opinion of the influences at work in the philosophical field in this country, and of the trend of thought today.

HENRY A. LUCKS.

The Catholic University of America.

A World of Chance: or Whence, Whither and Why? By EDWARD GLEASON SPAULDING. New York: Macmillan, 1936. Pp. xxxiii + 293.

The Philosophy of Physics. By Dr. MAX PLANCK. New York: W. W. Norton & Co., Inc., 1936. Pp. 128.

These two works reach conclusions that are diametrically opposed. Strangely enough, it is the scientist, Planck, who defends determinism and the philosopher who advocates contingency. (A digression may be in order here to point out certain terminological differences between Scholastic usage and modern nomenclature. Thus for the Scholastic, nature is both deterministic and contingent. The term contingent as used by Scholastics refers to the existence of creatures as opposed to the Necessary being of the Creator, while the term "determined" is applied to the behavior (*in actu secundo*) of sub-human creatures as opposed to the free-will of men, angels and God. Secondly, the notion of causality as employed by Scholastics is much broader than that of Planck and the New Physicists for whom causality is equivalent to what they call "determinism" or obedience to law, i. e., predictability. For Scholastics, a single and unique event requires an efficient cause and anything like the course of nature, the constant and regular sequence of phenomena, the routine and schedule and uniformities of nature, etc., pertain to teleology or final causes.)

The well-known principle of indeterminacy in the New Physics arose out of the fact that Planck's quantum seemed to imply that causality or determinism failed in the microcosm, i. e., at the atomic level. Although the majority of physicists today accepted this obvious implication (p. 70) and joined the school of indeterminism, Planck himself insists that determinism must not be abandoned and holds that its ostensible collapse is due to "the formulation of faulty concepts and hence of inappropriate questions" (p. 25). To him, Planck's quantum has simply destroyed the classical world-image.

As in his former works, *The Universe in the Light of Modern Physics* and *Where Is Science Going?*, Planck describes for us the PHYSICAL WORLD-IMAGE. This is a model, symbol, intellectual structure or idealization which is arbitrary, fictitious, artificial, perfectly exact, provisional and changeable. From the WORLD OF SENSE data are translated to the WORLD-IMAGE and transferred back again. The former is inaccurate and is composed of immediately observable and measurable magnitudes while the latter is "created in order to avoid the inaccuracy

inherent in every measurement and to facilitate exact definition" (p. 53). Now, in order to escape the awkward consequences of the so-called "Uncertainty Principles", Planck suggests the assumption of an ideal intellect or omniscient spirit whose powers of prediction are not limited by the quantum. In other words, the predictability or otherwise of an event may depend not only upon the event itself but also upon the predicting mind so that, for example, the weather forecastings made by a layman, a farmer and a meteorologist will vary in accuracy. Planck, therefore, cannot agree with those indeterminists who "look for irregularities behind every rule" and regard our knowledge of parts of nature as being confined to contingency and statistical probability. Instead he champions rigid determinism or strict causality, i. e., law, instead of doubt, contingency, chance or atomic free-will.

Among Planck's *obiter dicta* are occasional gems. Thus (p. 110) we read: "There could be nothing more misleading than the meaningless statement that everything is relative. The proposition does not even apply in physics". Again (p. 33; p. 79) the usual formulation (by moderns) of the free-will dilemma is described as "illusory, meaningless and incomplete". "The individual will is independent of the law of causality (sic!) and the two refer to totally different matters." "Looked at from outside (objectively) the will is causally determined, and looked at from inside (subjectively) it is free."

Planck asserts that the intellectual sciences cannot be rigorously separated from the natural sciences with which they are interconnected and that it is impossible to make a clear cut between science, religion and art. He rejects positivism, subscribes to what Professor Urban has baptised as The Great Tradition, has "faith" in the deeper harmony or rational ordering of this world and holds that "there is an irrational core at the centre of science which no intelligence can solve". From a veteran physicist and Nobel Prize winner such a confession is in significant contrast with the credo of less eminent savants.

Professor Spaulding, a member of the school of American Neo-Realists, offers us in the present work "an account of the structure of reality" which one might label as a pluralistic Tychism. His main thesis (p. xiii) is that "chance or contingency runs through and through the entire universe" and he reiterates (p. 276) "contingency, then, runs all through the structure of things, not only 'down' to nature but also 'within' nature itself . . ." and, to make the cosmos still more precarious, he adds that even the very contingency of the cosmic character is itself contingent.

Advancing the same epistemology as was contained in his *The New Rationalism*, Professor Spaulding rejects the idealistic and pragmatic theories of truth and insists upon the primacy of propositions. He also repudiates behaviorism, materialism and naturalism. "The basic structure of the Universe is Pluralistic" (p. 287) and its only unity is one of Totality not of Wholeness (p. 283). The Universe is a Pluralism of Five Functions or Properties, viz., possibility, reality, contingency, functionality and ultimacy (p. 80). The ultimate one of the universe is not Mind, Self, God, Experience or an unknowable (p. 80) and mind is not psychic substance, stream of consciousness or an association or integration of ideas (p. 272). Mind is "the fact or occurrence of rational inquiry in the world." It is "an emergent, a novelty, a result of organization" (p. 272). It is (p. 275) that (1) which is rational inquiry by means of propositions, (2) to which something is disclosed, and (3) which communicates and is communicated to by means of propositions.

Recondite excursions into symbolic logic and the abstruse Theory of Types beguile the reader of this work which this reviewer is tempted to describe in the author's own phrase (p. 106) as "the apotheosis of non-rationality."

DANIEL C. O'GRADY.

University of Notre Dame.

CURRENT PHILOSOPHICAL REVIEWS AND BOOK NOTES

The International Journal of Ethics—Vol. XLVI, No. 3: April, 1936.

James H. Tufts: Liberal Movements in the United States—Their Methods and Aims. Consideration in the light of some past and contemporary events is given to the questions: Has liberalism as a method for improving human life and society lost its value? What is the aim or scope of a "liberal" policy? **E. Jordan:** The False Principle of Liberalism. Liberalism is subjectivism adopted as the method of culture. Its principle is that reality is a state of mind, an experience. The possibilities of objects of use and of states of mind cannot be realized on liberal principles. Liberalism means that for generations we have amused ourselves with our states of mind and have done nothing else in spite of our interest in things. **H. Gomperz:** "*Cuius Regio, Illius Opinio*": Considerations on the Present Crisis of the Tolerance Idea. How has the change from nineteenth century thought, as represented by Mill's *On Liberty*, to the present intolerance come about? Methods of propaganda are a partial explanation. Also, it was the tragic error of democratic socialism to think that men could be deprived of their economic independence and yet maintain independence of thought. The pillars of spiritual—more especially of religious, but also of political—liberty have everywhere been, first of all, the higher and the lower aristocracy; further, the burgesses, who if not actually wealthy were at least not without property; occasionally, here and there, yeomen. **Charner Perry:** The Forms and the Substance of Liberalism. Liberalism is the belief that it is possible to construct a comprehensive and reasonable diagnosis and prescription for society. While faith in intelligence need not be abandoned, faith that intelligence can discover a rational scheme for allocating appropriate places to conflicting ideals has not been able to achieve an intelligible or rational foundation. **T. V. Smith:** The Strategic Liberty of Liberalism. Liberalism has found in one function—free speech—both means and end; its strategy goes to defend as the *sine qua non* of liberalism this right. **Brij Lal Sharma:** Authority and Obedience in Vedanta. The Vedanta state is democratic, socialist, non-totalitarian, believing in both nationalism and internationalism. The individual exists for the state only in the sense that without the state his well-being cannot be attained.

The Journal of Philosophy—Vol. XXXIII, No. 9: April 23, 1936.

A. C. Benjamin: The Concept of the Variable-Given. The concept of the variable-given involves a recognition of the fact that suppositional and hypothetical, the inferred, even the fictional and the non-existent, are given in some sense. This concept offers a general method of procedure for science and philosophy. **C. J. Ducasse:** Verification, Verifiability, and Meaningfulness. A brief review of the author's earlier theory of truth and verifi-

ability is followed by consideration of the question: When the verificatory procedure specified can not actually be carried out, how can we be sure that it is even theoretically possible? **Everett W. Hall:** Of What Use is Metaphysics? The cognitive usefulness of metaphysics is tied up with its cognitive method. Metaphysics is useful not only emotionally but cognitively, since it does deal with the class of all existents.

The Journal of Philosophy—Vol. XXXIII, No. 10: May 7, 1936.

John Dewey: Characteristics, and Characters: Kinds and Classes. Either logical theory must eliminate all reference to singular and generic propositions, to inclusion (save as an instance or mode implied in a universal proposition) and to inference, or it must, in recognizing the latter as logical forms, move on to a coherent theory of their distinction from and relation to universal propositions. **H. G. Alexander:** Linguistic Morphology in Relation to Thinking. It is important for philosophy to study the less conscious morphological symbolizations in language. This study has at least two merits: it offers a compromise in itself between too great systematization and no system at all, and it is the product of a natural, unsophisticated view of the world. **Peter A. Bertocci:** The Authority of Ethical Ideals. This authority has been raised on a realistic theory of moral knowledge. In the development of ideals, whatever ideal is considered the best by the critical intellect evokes that ultimate desire-transcending experience of compulsion which we designate by "ought."

The Journal of Philosophy—Vol. XXXIII, No. 11: May 21, 1936.

John Dewey: What are Universals? Although conceptualism has probably been in recent times the most widely held of the three theories, it is the most incoherent of all,—not because universals are not conceptual and ideal but because of a completely wrong theory of abstraction. It escapes from logical realism only by assuming the very matter at issue in its reference to the "common." **Thomas A. Goudge:** Further Reflections on Peirce's Doctrine of the Given. Certain inconsistences in Peirce's doctrine are discussed. His greatness consists in the heritage of highly-suggestive and fertile, though loosely-integrated, insights. Among these his views on the given in experience are not the least important. **John Somerville:** The Social Ideas of the Wiener Kreis's International Congress. A review of the "first International Congress for the Unity of Science" held in Paris, September, 1935. The title "logical positivism" is rejected because of its Comtist implications. Neurath, Carnap, Reichenbach and others have given up the quest for absolute certainty and have come to interpret the unity they seek in terms of growth: Unity grows. Neurath holds that sociology can become a genuine science. He projects an encyclopedia with the watchword: "Unity of science, and fraternity among the new encyclopedists."

The Journal of Philosophy—Vol. XXXIII, No. 12: June 4, 1936.

D. S. Miller: James's Philosophical Development; Professor Perry's Biography. A long review of Ralph Barton Perry's *The Thought and*

Character of William James. James was distinctly the best mind in the known intellectual life of America, making numerous contributions to strict philosophical theory. Particular consideration is given to James's theory of freedom. **Robert E. Fitch:** The Two Methods of Ethics. Experimental ethics alone seems to yield full ethical knowledge. The knowledge of dialectical ethics consists in hypostatizing certain aspects of moral procedure, giving them symbolical expression, and then manipulating these counters in a logical vacuum. **John Dewey:** One Current Religious Problem. Multitudes who have given up the supernatural are wondering whether they must in consequence abandon also the religious. This is a genuine and vital current problem for many persons.

The Journal of Symbolic Logic—Vol. I, No. 1: March, 1936.

W. V. Quine: Toward a Calculus of Concepts. The paper is limited to the definitional side: presentation of the primitive notions and various derivative ones, correlation of them with notions of traditional logistic and consideration of the range of derivable notions. **Arnold F. Emch:** Implication and Deducibility. Against Lewis's contention that his calculus of strict implication accords with the usual meaning of "implies," the writer presents consideration in the light of which the contention does not hold, and a new implicative relation upon which a calculus of propositions can be based such that it will accord with the relation of deducibility and from which it is possible to derive the calculi of strict and material implications. **Barkley Rosser:** Constructibility as a Criterion for Existence. and **Alonzo Church:** A Note on the Entscheidungsproblem are also found in this issue as is a bibliography of the current literature in the field of symbolic logic.

The Modern Schoolman—Vol. XIII, No. 4: May, 1936.

Maurice B. McNamee: The Cathartic Principle Again. The function of tragedy is to rejoice the mind and the whole being with a deeper insight into the meaning of suffering and evil in man's life. In the tragedy the mind is at least partially possessed of one of the most mysterious and desired of truths. The clearer the vision the better does the tragedy accomplish its purpose. **Walter G. Summers:** Spearman's Two-Factor Theory. Spearman's contributions to the literature of modern psychology are characterized by erudition, precision, clarity and as refutations of the hasty generalizations of materialism. The common factor in all intellectual experiences minimizes the value of the neogenetic laws formulated by Spearman. **Timothy Brosnahan:** Ethics: A Science. Ethics is a science with reason as its basis. All the general principles of morals are not held to be known immediately or to be equally evident. Our knowledge of primary principles is not innate. Ethics is distinguished from other sciences of conduct because it is practical, normative and by its formal object. **Stephen J. Rueve:** Aristotle on Happiness and Pleasure. A discussion of Aristotelian ethical terminology: Εὐδαιμονία should not be translated as "happiness" but transliterated as "eudemony."

Philosophy—Vol. XI, No. 42: April, 1936.

W. R. Inge: The Place of Myth in Philosophy. When the mind communes with the world of values its natural and inevitable language is the language of poetry, symbol and myth. The concepts of philosophy are hypostatized ideals recognized as the supreme realities. When a new Plato arrives he may create his own myths. **T. M. Knox:** The Study of Economic Activity. A study of economic activity from the point of view of the business man and that of the philosopher. A genuine philosophic study of economic activity is needed by all students of the field, by the business man, who thinks that prosperity results from economic laws and not from human effort, and by philosophy itself. **A. C. Garnett:** The Interest Theory of Value. We value a thing because it has value; it does not merely have value because we value it. The value of a thing is the harmony of the nearer and remoter ends with which the activity directed upon it is concerned. The religious man treats his value experience as a clue to the nature of reality of an importance equal to that of his sense experience. **C. Lloyd Morgan:** Physical Influence and Mental Reference. Influence and reference are considered as differing but co-related kinds of relatedness within that which we speak of as the constitution of nature. Our reflective aim should be to distinguish that closed system of influence which we call the physical world from that complementary system of reference on which is based our knowledge of the physical world. **Hilda D. Oakeley:** Philosophic History and Prophecy. Discussion of Prof. Arnold Toynbee's theory of history. **Ivan W. Brooks:** On Abstract Art. Unless art is quite meaningless and merely a luxury and a decoration, the forms it uses must be of some intellectual significance and derive from some form of belief in ultimate things. In this case, modernist abstract art derives not from pagan but from Manichaean thought. The contempt and distrust of the natural order are found in Calvinistic Puritanism as well as in abstract art. This contempt is the antithesis of the mental attitude of the early Catholic painters, Italian, French or English, with their tender love for the natural forms of birds, beasts and leaves. This issue also contains **Guido de Ruggiero:** Philosophy in Italy.

The Philosophical Review—Vol. XLV, 3: Whole No. 267: May, 1936.

D. Bidney: Value and Reality in the Metaphysics of Spinoza. The equivocal nature of Spinoza's theory and method with regard to the problem of the relation of value to reality is due to his attempt to combine the Platonic and Aristotelian traditions. He did not realize that perfection insofar as it is prior to being is incapable of efficient activity, and can act only as a final cause. **S. C. Tornay:** William of Ockham's Nominalism. An atempt to delineate "Ockham's essential contribution, his nominalistic or terministic theory of knowledge to which he owes his chief fame." His nominalistic formulations contained the seeds of the entire problem of knowledge which was to dominate late European thought. **Morris Lazerowitz:** Necessary and Contingent Truths. A discussion of the subject in terms of symbolic logic. It is held that the dictum, "whatever follows

necessarily from a necessary truth is itself necessary" is logically valid. **Carroll Sibley:** The Problem of the Categories. The categories must be accepted as "living options" and cannot be discussed as monuments of a past that no longer has relations to the present. The problem of the categories rather than its solution beckons the philosopher. This issue also contains discussion on "Classical and Relational Logic" by **Roger W. Holmes** and on "Pareto's Sociology" by **Henry J. Bitterman.**

The Journal of Social Philosophy—Vol. 1, No. 3: April, 1936.

A. B. Wolfe: Will and Reason in Economic Life. It is held that there is only one final value—the joy of living: "It is because I want to live and because I take vicarious joy in seeing you live—living securely, vividly, and happily—that I see the central significance of feeling and sentiment, and can agree with those philosophers who assert that all ultimate meaning is to be found in human feeling and there only." Reason is primarily a tool of the will. **Talcott Parsons:** Pareto's Central Analytical Scheme. Pareto's work has a definite analytical scheme. Pareto represents an undogmatic, relatively open-minded view of science and its method which leaves room for the scientific treatment of subjective phenomena and avoids the pitfalls of radical empiricism. He treated logical action as an element of concrete action. He treated non-logical action as a genuine residual category. **Andrée Emery:** The Totalitarian Economics of Othmar Spann. Spann's economics has nothing new. The significance of his trend of thought is that it is a search for a coordinating principle, something which has the semblance of the new but does not entail radical changes.

Divus Thomas—14. Band, 1. Heft: March, 1936.

G. M. Haefele: *Vor 50 Jahren. Erinnerungen aus der Werdezeit des Jahrbuches.* Divus Thomas begins with the March, 1936, issue its fiftieth year and the writer of this article recalls some of the vicissitudes attendant upon its origin and first appearance in the philosophical field, as shown especially from various letters of the time. The plan for a publication of this type was first outlined at the Collegium Alberoni in Piacenza by Dr. Albert Barberis some few months after the encyclical "Aeterni Patris" of Leo XIII, and was brought to fruition through the efforts of Dr. Ernst Commer, sometime professor of philosophy at St. Edward's College, Liverpool, and later professor of apologetics at the Royal Academy in Münster. **Hieronymus Wilms:** *Um das Wesen der Mystik.* The writer, seeing the deep interest of his countrymen of the present century in mysticism, and yet confronted by an apparent ignorance of what really constitutes the essence of mysticism, attempts in these pages not so much to define mysticism accurately as to clarify certain points subject to frequent confusion. This confusion is due above all to the theories of so-called mysticism put forth by pantheists, Buddhists, theosophists, and others of this class, and to a lesser degree also to the varying views of well-meaning Catholics themselves. **G. M. Manser:** *Gibt es eine Christliche Philosophie?* This is the first of a series of articles on the question whether there is a specifically Christian philosophy as such. Originally the matter was taken more or less for granted by Catholics and

Protestants alike and we find the non-Catholic historian Heinrich Ritter agreeing with such Catholic historians as A. Stoeckl and Paul Haffner that there is definitely a Christian philosophy. Today the question is discussed almost exclusively by Catholics and was the especial subject of discussion at the conference of the *Société Thomiste* at Juvisy near Paris on September 11, 1933, to which Maritain, though absent, had addressed a letter urging the adoption of a resolution declaring in favor of the existence of a Christian philosophy as such. Nevertheless proponents of this theory were unable to answer the powerful objections of the late Pierre Mandonnet O. P. and others, and were forced to admit that the term *Christian philosophy* was rather ill-chosen. The writer here undertakes to answer three questions: 1. In what does the essence of philosophy consist? 2. In what sense is there absolutely no Christian philosophy? 3. In what sense can we speak of a Christian philosophy? **Alphons M. Well:** *Zur Rehabilitierung der vorwissenschaftlichen Erfahrung.* Since the advent of modern empiricism the value which Scholasticism and in particular St. Thomas placed on experience has been to a great extent forgotten. Not a few are there who would hold with R. Eisler that "the Scholastics neglect experience in contrast to conceptual thought." Yet the fundamental doctrine of St. Thomas himself "naturalis nostra cognitio a sensu principium sumit" should be enough for any critic to recognize that there is no neglecting sense experience in the Master of Scholasticism. Father Well ably demonstrates that Scholasticism does not limit itself to gaining knowledge from experience, but with this as a premise goes farther into a sphere where sense experience is no longer possible.

Gregorianum—Anno XVII—Vol. XVII: Fasciculus 1, 1936.

S. Mueller: *Die Unbefleckte Empfaengnis der Gottesmutter in der griechischen Ueberlieferung.* The doctrine of the Immaculate Conception is shown to have been part of Greek tradition during the entire period from the time of Photius to that of Michael Caerularius, when the schism became definite and complete. Numerous quotations from the writings and homilies of such Greek theologians and scholars as Photius, George the Metropolitan of Nicomedia, Euthymus, and many writers of lesser repute attest to the clear doctrine of the Immaculate Conception in the Greek tradition. The present writer's aim is to show that in attacking the doctrine today the Orthodox Greeks have strayed from the faith of the ancient Greek church and hence can no longer claim to have held to the faith handed down by the Apostles.

Other articles in this issue are: **B. Llorca:** *El P. Suárez y la Inquisición española en 1594. Memorial del mismo sobre la cuestión "de auxiliis div. gratiae."* **L. W. Keeler:** History of the Editions of St. Thomas "*De unitate intellectus.*"

Revue d'histoire de la philosophie et d'histoire générale de la Civilisation—N. S., Fasc. 13: 15 Janvier 1936.

Gustav Koehler: *Le problème de la substance dans la philosophie d'Aristote. Étude critique.* Assuming that existence and substance are

identical, the author describes Aristotle's theory of matter and form as a confusing and contradictory attempt to bridge the chasm between the ideal and external worlds. **Henry Serouya:** *La philosophie de Maimonide.* Charterizes Maimonides as above all a theologian and outlines his teaching about God, the universe and its mechanism, prophecy, and human conduct and religion. **André Michel:** *Les Mémoires d'un clerc (1re partie).* Summary and discussion of Alfred Loisy's *Mémoires pour servir à l'histoire religieuse de notre temps.*

Revue néoscolastique de philosophie—XXXIX (deuxième série, no. 49): February 1936.

The first four articles discuss the relation past and future of the physical sciences to philosophy. **A. Mansion:** *La physique aristotélicienne et la philosophie,* says that we can find no solution for this problem in Aristotle, who, in fact and in theory, excluded from his synthesis, together with mathematics, the disciplines of his day that used exact measurements in their study of reality. **D. Salman:** *La conception scolastique de la physique,* extends his conclusion to the Scholastics. The very notion of a distinction between scientific knowledge and philosophic knowledge is foreign to the middle ages; quite characteristic of modern thought is the distinction based as it is on the modern discovery that physical properties are quite different from their sense impressions. To us reality is not as it looks. For this distinctively modern problem, **F. Renoirte:** *Physique et philosophie,* offers the following solution. For physics, the property of an object is simply a measure expressed in terms of a measuring device; a theory is only a summary of such measurements that becomes a basis for more refined measurements. Its content and its future are exclusively inductive. Consequently philosophy must confine its activity to a justification of the postulates of science. With this conclusion, **Y. Simon:** *La science moderne de la nature et la philosophie,* apparently disagrees. For him, the scientific concept and the philosophical concept are two facets of reality. Reality is analogical as being is analogical. Stripped of their purely mathematical elaboration, physical concepts may become the object of philosophic speculation. In fact, the combination of these two types of knowledge into a related whole must devolve upon philosophy.

The present volume also contains three valuable summaries of recent work in philosophy: **A. Mansion:** *Quelques travaux récents sur les versions latines des Éthiques et d'autres ouvrages d'Aristote*; **F. Gregoire:** *Travaux d'histoire de la philosophie ancienne*; and, **J. Dopp:** *Ouvrages récents d'histoire de la philosophie moderne.*

Scholastik—XI Jahrgang—Heft 2.

Franz Pelster: *Adam von Bocfeld (Bockingfold), ein Oxforder Erklärer des Aristoteles um die Mitte des 13 Jahrhunderts.* That middle age Scholasticism was productive of more noteworthy scholars than the world is as yet fully cognizant of is clearly shown in this authoritative study of the thirteenth century Oxford philosopher, Adam of Buckingfold. Father

Pelster begins by showing that the variations in spelling: Bouchermefort, Bozefano, and others, all refer to the same individual. Comparatively little is known as yet of his life but documents show that he was a canon in the cathedral of Lincoln in 1264. The literary works to which reference is made in the article are for the most part those which have already been studied by the famous German scholar Grabmann. **Johannes Beumer:** *Lassliche Sunde und Andacht Beichte.* A book with this title appeared at Innsbruck in 1935, written by Dr. Franz Zimmermann in which the author attemtped to show the relation of venial sin to the sacrament of penance. It was his purpose in this book to urge that the so-called devotional confession, namely when only venial sins are confessed should assume more and more the character of spiritual direction. To his explanation of the character of venial sin Father Beumer takes more or less exception in this article in which he points out the teachings especially of the Council of Trent on the subject. **Johann B. Schuster:** *Das Verhaeltnis von iustitia legalis und distributiva zur iustitia socialis in Quadragesimo anno mit besonderer Beruecksichtigung der Lehre von Heinrich Pesch S. J.* The writer of this article compares the teaching of Heinrich Pesch S. J. on the relationship of legal and distributive justice to social justice, with the doctrines enunciated by Pius XI in the encyclical "Quadragesimo anno." According to Pesch social justice is first of all legal justice, but it includes as a correlative also distributive justice. While the terms legal and distributive justice are not used in the encyclical Father Schuster attempts to show the close relationship between the views of Pesch and those expressed by the Holy Father, and concludes that the former's writings on the subject still merit careful consideration.

Recherches de Théologie ancienne médiévale—Tome VIII: Janvier 1936.

This issue contains the following articles: **J. Rivière:** *Le plus vieux "transitus" latin et son dérivé grec.* **B. Smalley:** Gilbertus Universalis, Bishop of London (1128-34) and the Problem of the '*Glossa Ordinaria.*' **G. Englhardt:** Adam de Puteorumvilla. *Un maître proche d'Odon Rigaud. Sa psychologie de la foi.* **J. Koch:** *Neue Aktenstueke zu dem gegen Wilhelm Ockham in Avignon gefuehrten Prozess.* **A. Dondaine:** *"De Tempore" de* Robert Kilwardby, O. P. **A. Dondaine:** *La Question "De necessitate incarnationis" de* Robert Kilwardby, O. P. *Recherches de Théologie ancienne et médiévale—Tome* VIII: *Avril,* 1936. **D. O. Lottin:** *Commentaire des Sentences et Somme théologique d'Albert le Grand.* **P. Glorieux:** *De quelques "emprunts" de saint Thomas.* **J. Koch:** *Neue Aktenstueke zu dem gegen Wilhelm Ockham in Avignon gefuehrten Prozess.* **A. Landgraf:** *Der Magister Petrus episcopus.* **H. Pouillon:** *La "Summa de bono" et le Commentaire des Sentences d'Albert le Grand.*

Revue des Sciences Philosophiques et Théologiques—Vingt-Cinquième Année, No. 2: Avril, 1936.

A. S. Festugière: *La doctrine du plaisir des premiers Sages à Épicure.* A large part of this article is given over to the doctrine of Aristotle and its

relation to that of Epicurus. *Ainsi, dans la pratique, Épicure et le Stagirite mènent-ils au meme terme. La vie heureuse est une vie recluse ou l'on se consacre à l'étude. . . . Pour Aristote, l'activité de la pensée exige la maîtrise des passions, la subordination de l'âme inférieure au voῦs qui nous caractérise.* **M. L. Guérard des Lauriers:** *L'activité de jugement.* The third of this series of articles is entitled *De l'unité ideale à l'un Existant.* The doctrine of Brunschvicg is given particular consideration.

God Is My Adventure. By ROM LANDAU. New York: Alfred A. Knopf, 1936. Pp. 407 + xvi.

In his preface the author writes: "This book is the confession of an adventure and the story of my friendships with those men whom a future generation may call the prophets of our time." Those men are Count Hermann Keyserling, Stefan George, Bô Yin Râ, Krishnamurti, Shri Meher Baba, Principal George Jeffreys, Frank Buchman, P. D. Ouspensky, Gurdjieff, Rudolf Steiner. Their personalities and their activities in the fields of modern religion and mysticsm are described in chapters bearing such titles as "Wisdom in Darmstadt" (Keyserling), "The Throne that was Christ's" (Krishnamurti), "Harmonious Development of Man" (Gurdjieff), "Miracle at Albert Hall" (Jeffreys). The author takes his subjects seriously, so seriously that the humor necessary for seeing them in their proper perspective rarely finds expression on his pages.

For the student of religion and of the philosopher of religion, for the observer of the contemporary scene and for the future historian of our time this book has value and interest. Ours is assuredly not an age of faith in the traditional sense of that phrase, but man has not ceased to be a religious animal. Hence in these latter days not only do great blocks of human beings turn to the worship of the state or of their own race; smaller blocks turn to Buchmanism, theosophy, become followers of an Eastern "perfect master," or a Western evangelist. To read of these latter groups in the pages of *God Is My Adventure* is enlightening, but it does not lead to an optimistic view of the intellectual level of no small part of the contemporary European and American population.

J. K. R.

Der Ursprung unserer Begriffe nach Richard von Mediavilla. Ein Beitrag zur Erkenntnislehre des doctor solidus. By P. PALMAZ RUCKER (*Beitraege zur Geschichte der Philosophie und Theologie des Mittelalters,* Bd. XXXI, *Heft.* 1.) Muenster: Aschendorff, 1934. Pp. xvi + 174.

This excellent dissertation by Father Rucker, written under the direction of Professor Geyer, studies the theory of knowledge of Richard of Middleton (*c.* 1249-*c.* 1308). The question of the origin of our ideas was

a matter of great interest and controversy in the 13th and 14th centuries. Several similar studies of other authors have previously been presented in the *Beitraege.*

Richard of Middleton, the greatest Franciscan theologian in the last quarter of the 13th century and no mean philosopher, received little recognition from scholars until recently. The editions of his works are incomplete, old, and very faulty. Father Rucker has been obliged to base his work on manuscripts. He has searched through Richard's writings for the many scattered passages concerning the theory of knowledge; he weeds out the minor inconsistencies and is able to present what is the unmistakable and clear teaching of his author. He quotes generously in the footnotes, frequently from the unprinted *Quaestiones disputatae.*

Richard's theory on the origin of our ideas is explained against a broad background of the teaching of others. Most interesting is the evident influence of St. Thomas on this Franciscan, a thing which has long been recognized, but which Father Rucker shows must not be exaggerated.

BOOKS RECEIVED

Bridgman, P. W. *The Nature of Physical Theory.* Princeton University Press, 1936. Pp. 138.

Buchler, Justus and Schwartz, Benjamin (Ed) George Santayana: *Obiter Scripta.* New York: Charles Scribner's Sons, 1936. Pp. xiv + 319.

Cantineau, Simone. *Des Gamines sans Importance.* Paris: Librarie Bloud & Gay, 1936. Pp. 158.

Cayré, F. (Trans. by H. Howitt). *Manual of Patrology and History of Theology.* Paris: Desclée and Co., 1936. Vol. I: pp. xxxvii + 742.

Chrevrot, G. *Jésus et la Samaritaine.* Paris: Bloud & Gay, 1936. Pp. 278.

Duhamelet, Geneviève. *Ces gens-là.* Paris: Bloud & Gay, 1936. Pp. 222.

Filthaut, Ephrem. *Roland von Cremon, O. P., und die Anfaenge der Scholastik in Predigerorden Ein Beitrag zur Geistesgeschichte der aelteren Dominikaner.* Vechta: Albertus-Magnus-Verlag, 1936. Pp. xv + 224.

Gilson, Étienne. *Le Réalisme Méthodique.* Paris: P. Téqui, 1936. Pp. 101.

Graf, Thomas. *De Subiecto Psychico Gratiae et Virtutum.* Rome: Libraria Herder, 1935. Vol. II: pp. viii + 159.

Gregory, T. S. *The Unfinished Universe.* New York: Sheed and Ward, 1936. Pp. 343.

Gurian, Waldemar. *The Future of Bolshevism.* New York: Sheed and Ward, 1936. Pp. 125.

Keeler, Leo W. *Sancti Thomae Aquinatis Tractatus de Unitate Intellectus Contra Averroistas.* (*Textus et Documenta,* Series Philosophica, 12). Rome: Apud Aedes Pont. Universitatis Gregorianae, 1936. Pp. xxiv + 86.

Lindsay, Robert Bruce and Margenau, Henry. *Foundations of Physics.* New York: John Wiley & Sons, Inc., 1936. Pp. xiii + 537.

Logsdon, Mayme I. *A Mathematician Explains.* Chicago: The University of Chicago Press, 1935. Pp. xii + 189.

Margenau, Henry and Lindsay, Robert Bruce. *Foundations of Physics.* New York: John Wiley & Sons, Inc., 1936. Pp. xiii + 537.

Mitterer, Albert. *Das Ringen der Alten Stoff-Form-Metaphysik mit der Heutigen Stoff-Physik.* Innsbruck: Tyrolia-Verlag, 1935. Pp. 160.

Moody, Ernest. *The Logic of William of Ockham.* New York: Sheed and Ward, 1935. Pp. xiv + 322.

Needham, Joseph. *Order and Life.* New Haven: Yale University Press, 1936. Pp. x + 175.

Northrop, F. S. C. and Others. *Philosophical Essays for Alfred North Whitehead.* New York: Longmans Green and Co., 1936. Pp. vii + 248.

Planck, Max. *The Philosophy of Physics.* New York: W. W. Norton & Co., 1936. Pp. 128.

Prall, D. W. *Aesthetic Analysis.* New York: Thomas Y. Crowell Co., 1936. Pp. vii + 211.

Rader, Melvin M. *A Modern Book of Esthetics.* New York: Henry Holt & Co., 1935. Pp. xxxv + 504.

Romeyer, B. *La philosophie chrétienne jusqu'à Descartes.* Paris: Librairie Bloud & Gay, 1936. Vol. II: pp. 180.

Ryan, E. A. *The Historical Scholarship of Saint Bellarmine.* New York: Fordham University Press, 1936. Pp. xiv + 226.

Sanford, Hugh W. *Concerning Knowledge.* New York: G. P. Putnam's Sons, 1936. 2 vols. Pp. xx + 779.

Schwartz, Benjamin and Buchler, Justus (Ed.). George Santayana: *Obiter Scripta.* New York: Charles Scribner's Sons, 1936. Pp. xiv + 319.

Spaulding, Edward Gleason. *A World of Chance.* New York: The Macmillan Co., 1936. Pp. xxxiii + 293.

Wolf, A. *A History of Science, Technology, and Philosophy in the 16th and 17th Centuries.* New York: The Macmillan Co., 1935. Pp. xxvii + 692.